1º encontro A&BM

Sardinha e Sargaço: possibilidades de representação

29 e 30 de Outubro 2018

Ivo Oliveira e Marta Labastida (Lab2PT)

Projeto de Investigação “O Mar e o Litoral, Arquitetura e Biologia Marinha: O Impacto da Vida do Mar no Ambiente Construído” POCI-01-0145-FEDER-029537

Segunda-feira, 29 de Outubro
Escola de Arquitetura da Universidade do Minho, Guimarães

9h30-9h40 Abertura, contextualização e explicação do programa do dia (10 min)

Primeiras aproximações

9h40-10h00 André Tavares : Fishing Architecture (20 min)
10h00-10h20 Daniel Pereira: Escalas para uma análise da Sardinha e do Sargaço 10h20-10h40 Inês Amorim: Ocean Past Platform (20 min)
10h40-11h30 Debate (20 min)

+ Pausa para café

Casos de estudo
12h00-12h40 Grupo CIIMAR: Hipóteses Preliminares I e II (20 + 20 min)
12h40-13h00 Debate (20 min)

+ Pausa para almoço

14h30-14h50 José Varela: Industria Conserveira de Matosinhos (CMM) (20 min)
15h50-15h10 Ivo Oliveira e Marta Labastida (Lab2PT) (20 min)
15h10-15h30 Aitor Ochoa: O bacalhau na arquitectura portuguesa (20 min)
15h30-16h00 Debate (30 min)

Terça-feira, 30 de Outubro
Visitas de campo na Póvoa de Varzim e Matosinhos

10h00 Ponto de encontro: Praia do Quião (Restaurante Praia do Mestre)
10h00-10h30 Visita à apanha, seca e armazenamento do sargaço com José Rabelo (antigo sargaceiro)
10h30-11h30 Visita aos campos de masseira com Alexandre (Navais)

+ 12h30 Almoço em Matosinhos

14h00-15h00 Visita à Fábrica de Conservas Pinhais & Companhia com Nuno Rocha
15h00-16h30 Caminhada por Matosinhos Sul

+ pausa para café

17h00-18h00 Conclusões e definição de metas de trabalho no CIIMAR, terminal de cruzeiros

1º encontro A&BM

Sardinha e Sargaço: possibilidades de representação

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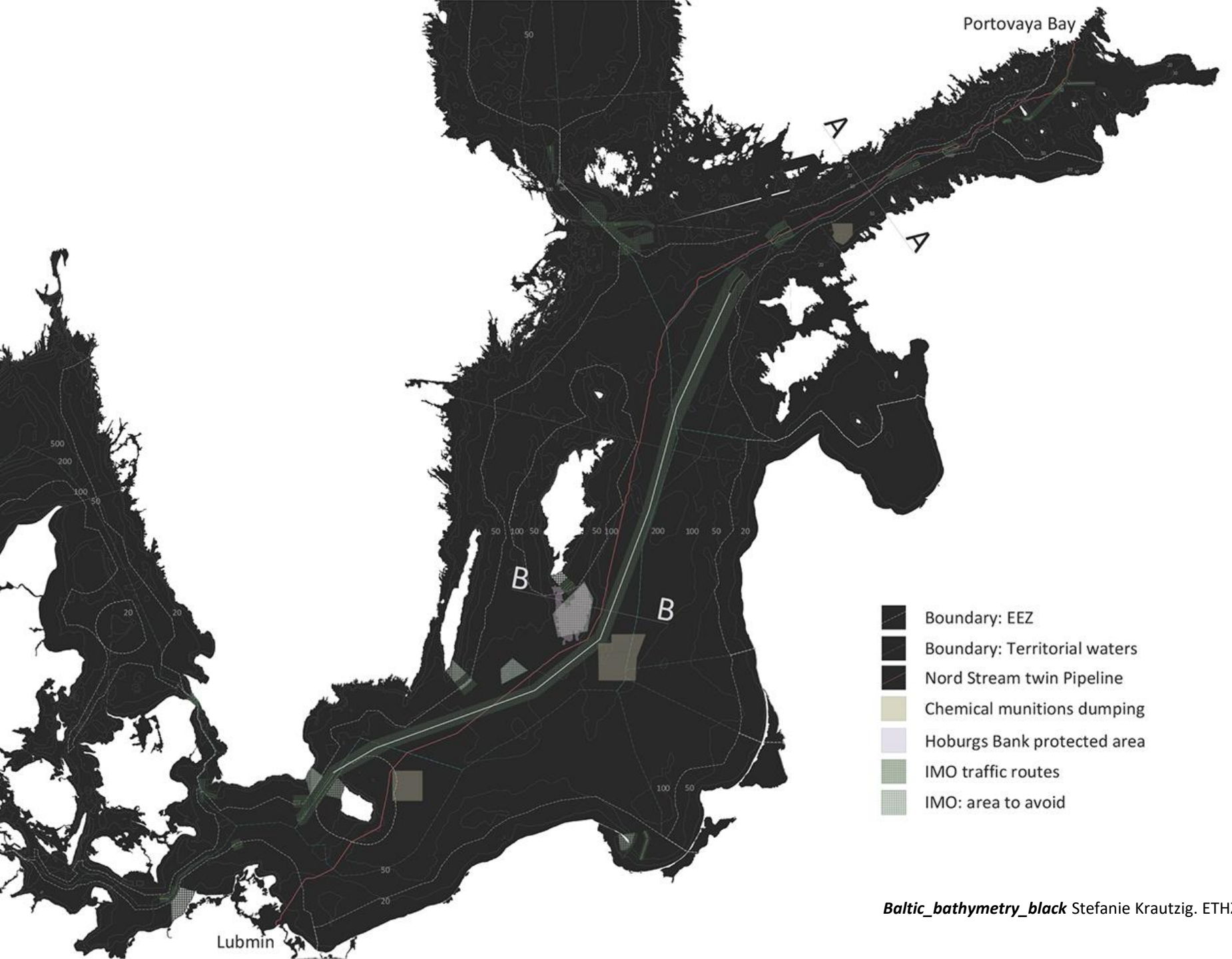
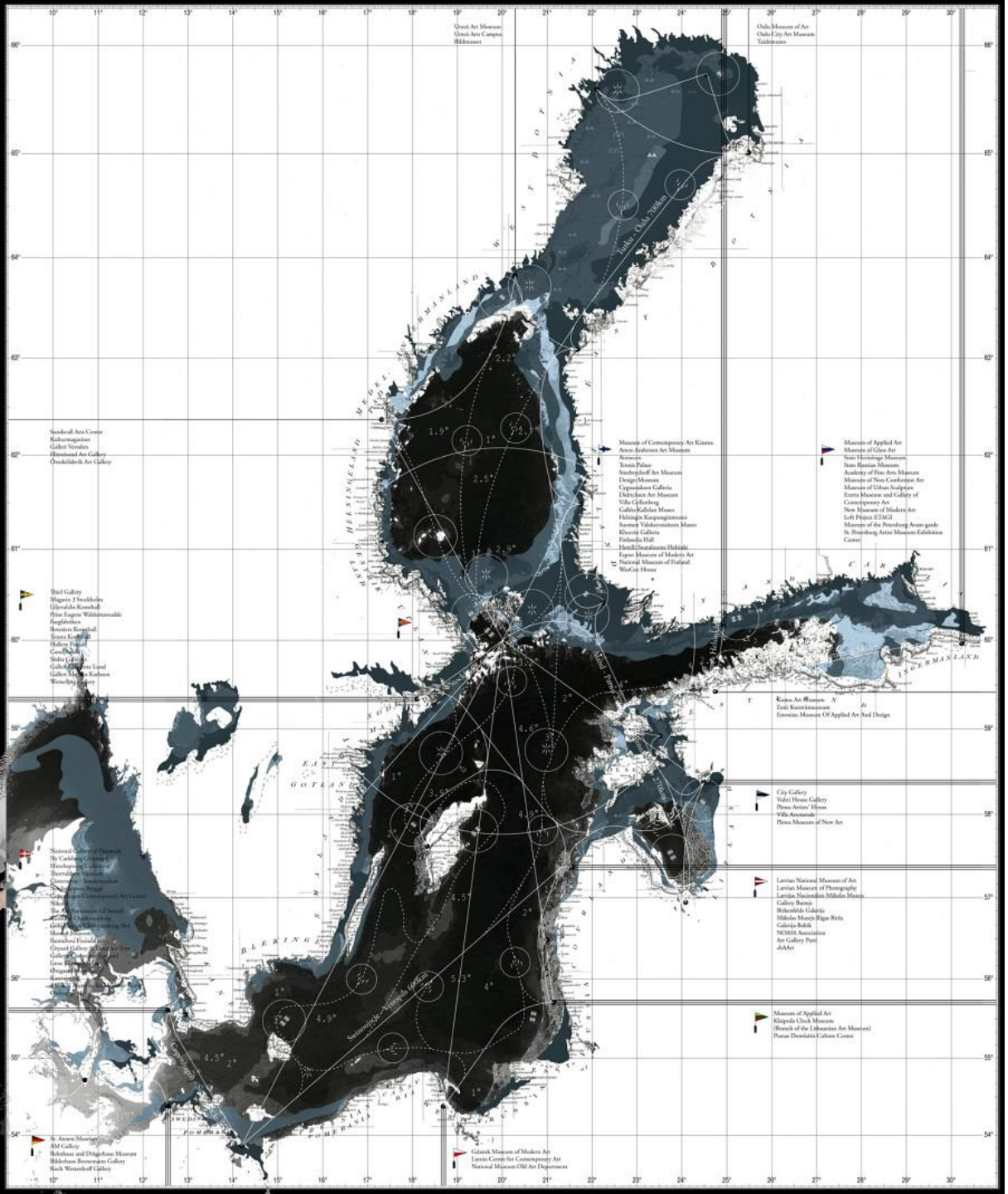
La Mer et l'Homme, Grédiac, Lacrocq, Rouchet & Savitchev

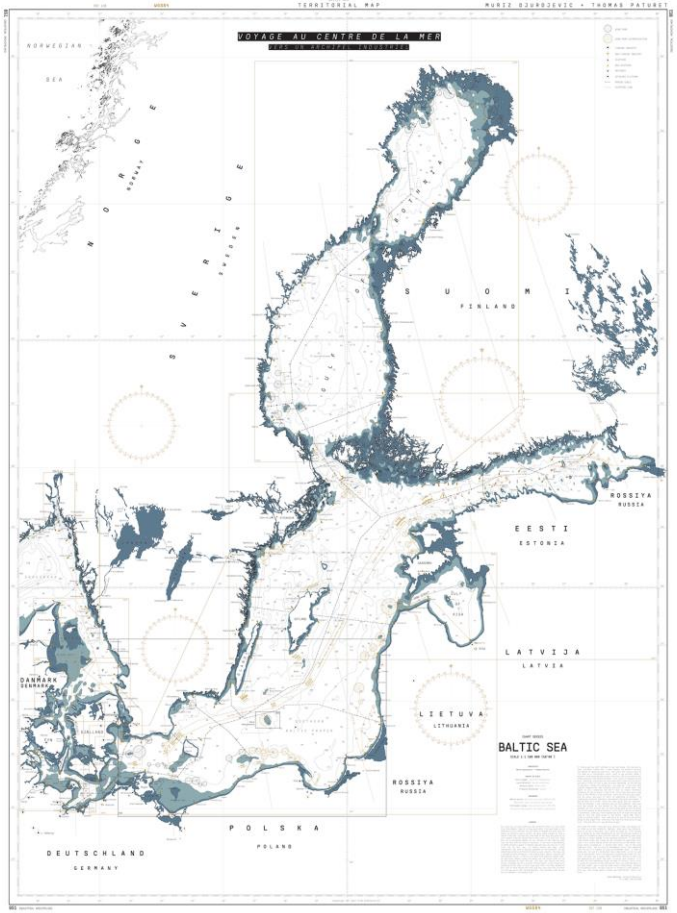
Ecole Nationale Supérieure d'Architecture de Clermont-Ferrand

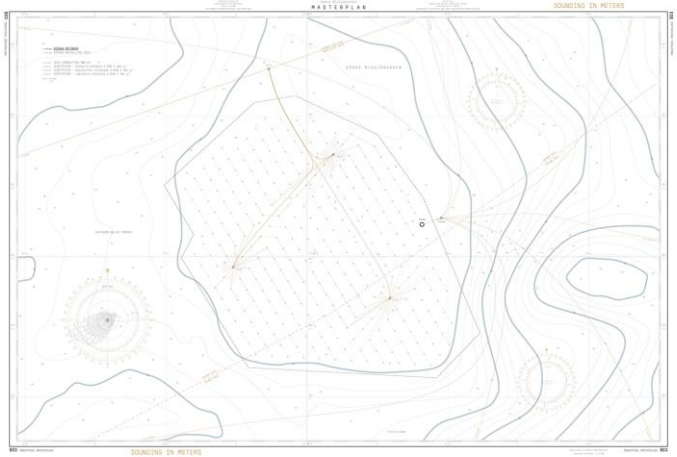


Baltic_bathymetry_black Stefanie Krautzig. ETHZ

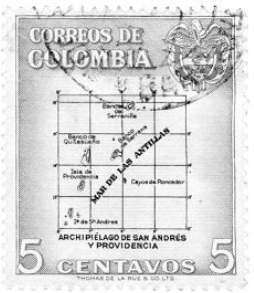


BALTIC SEA / Kunst Dokk.
Luis Callejas landscape Architect





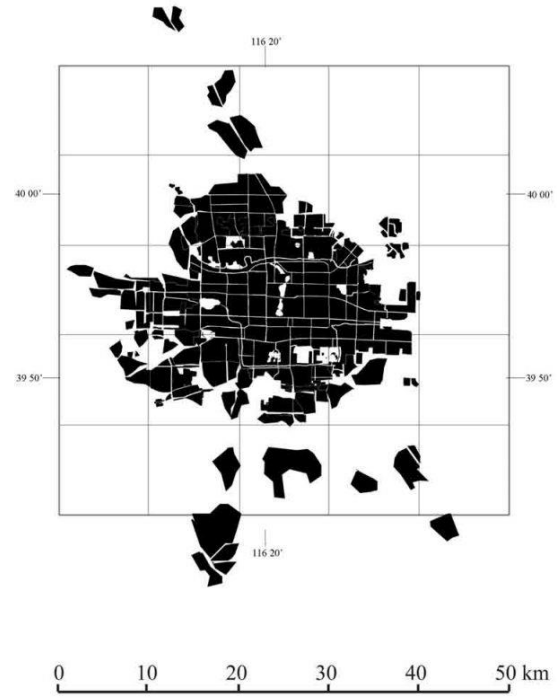
Voyage au centre de la Mer. Vers un archipel industriel.
Muriz Djurdjevic & Thomas Paturet.
EPFL

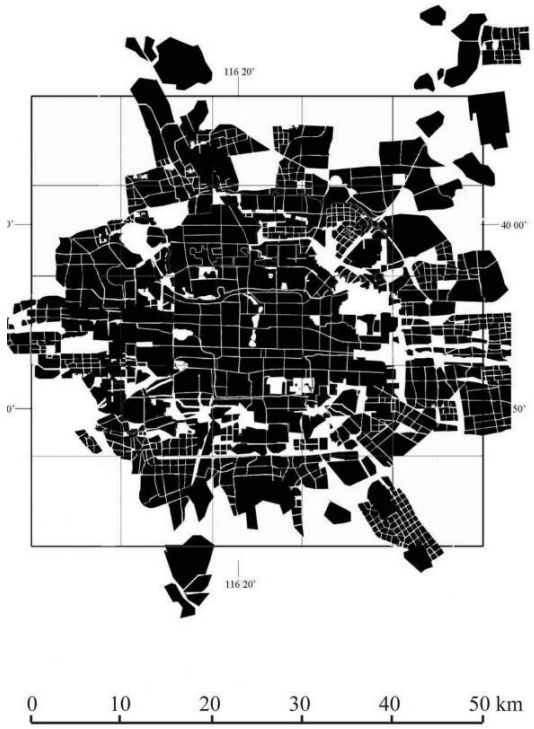


COLOMBIAN STAMP FROM 1956
THE ARCHIPELAGO UNDERSTOOD AS AN OCEANIC REGION

COLOMBIAN STAMP FROM 2010
SHOWING OFF A DECAYING LIGHTHOUSE
AND TWO SCIENTIST VISITING ONE OF THE CAYS

SEA / Serrana & Quitasueño.
Luis Callejas Landscape Architect


116 20'
40 00'
39 50'
0 10 20 30 40 50 km


116 20'
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116 20'
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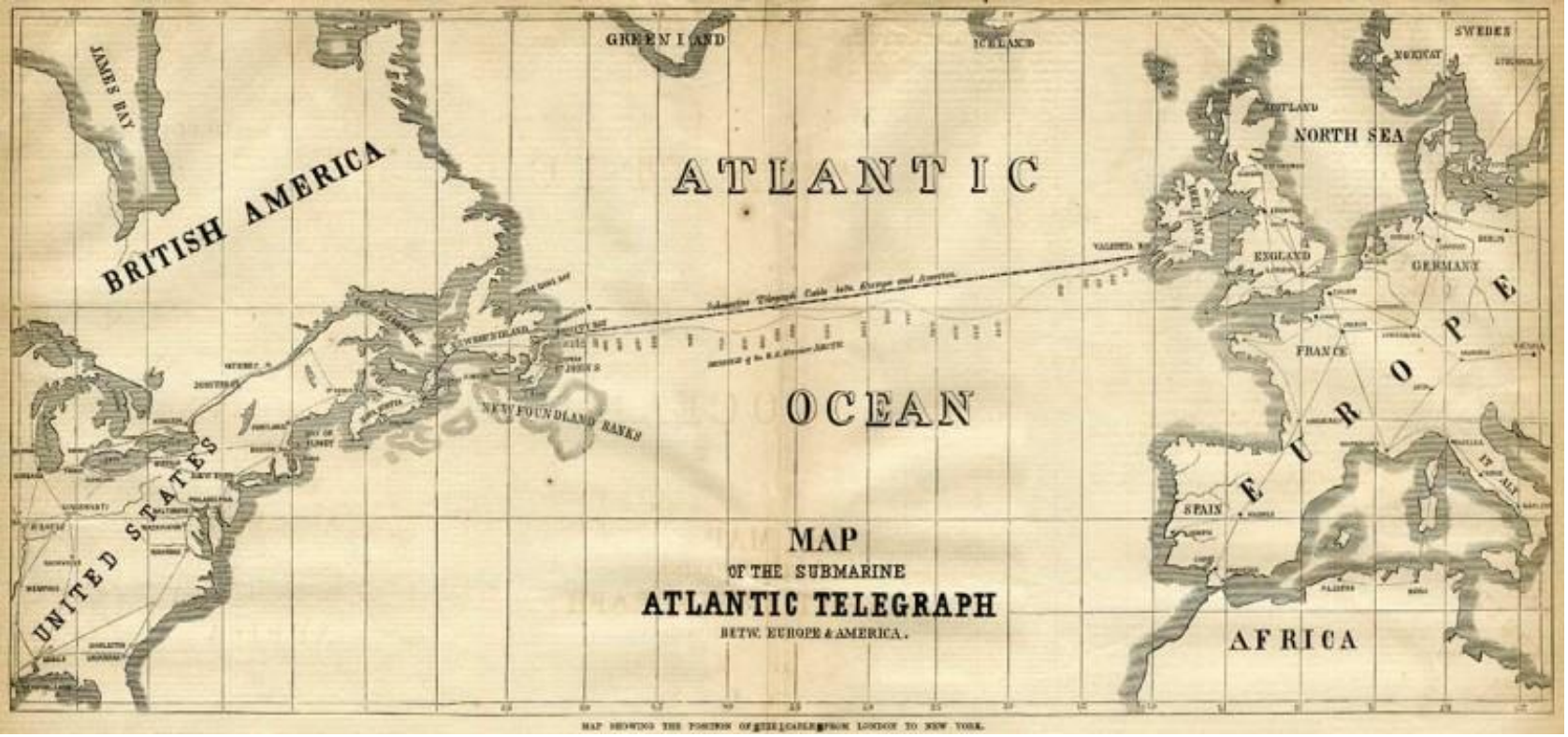
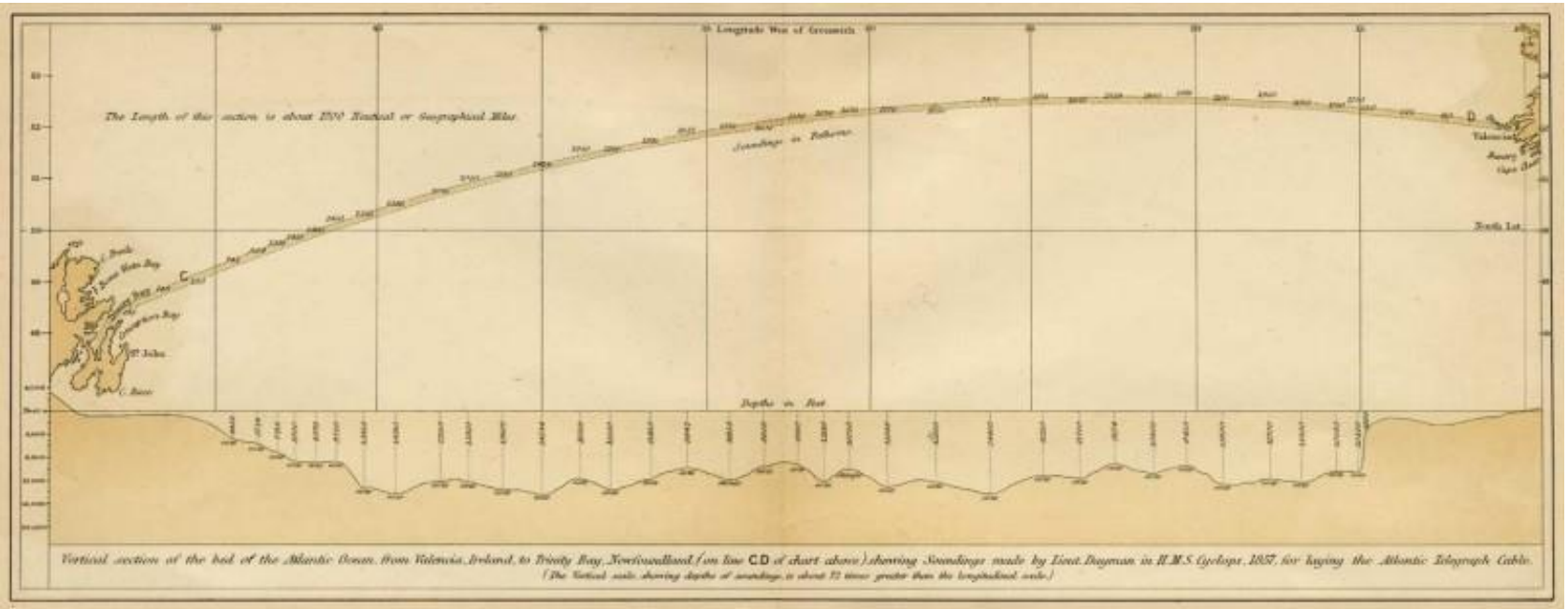


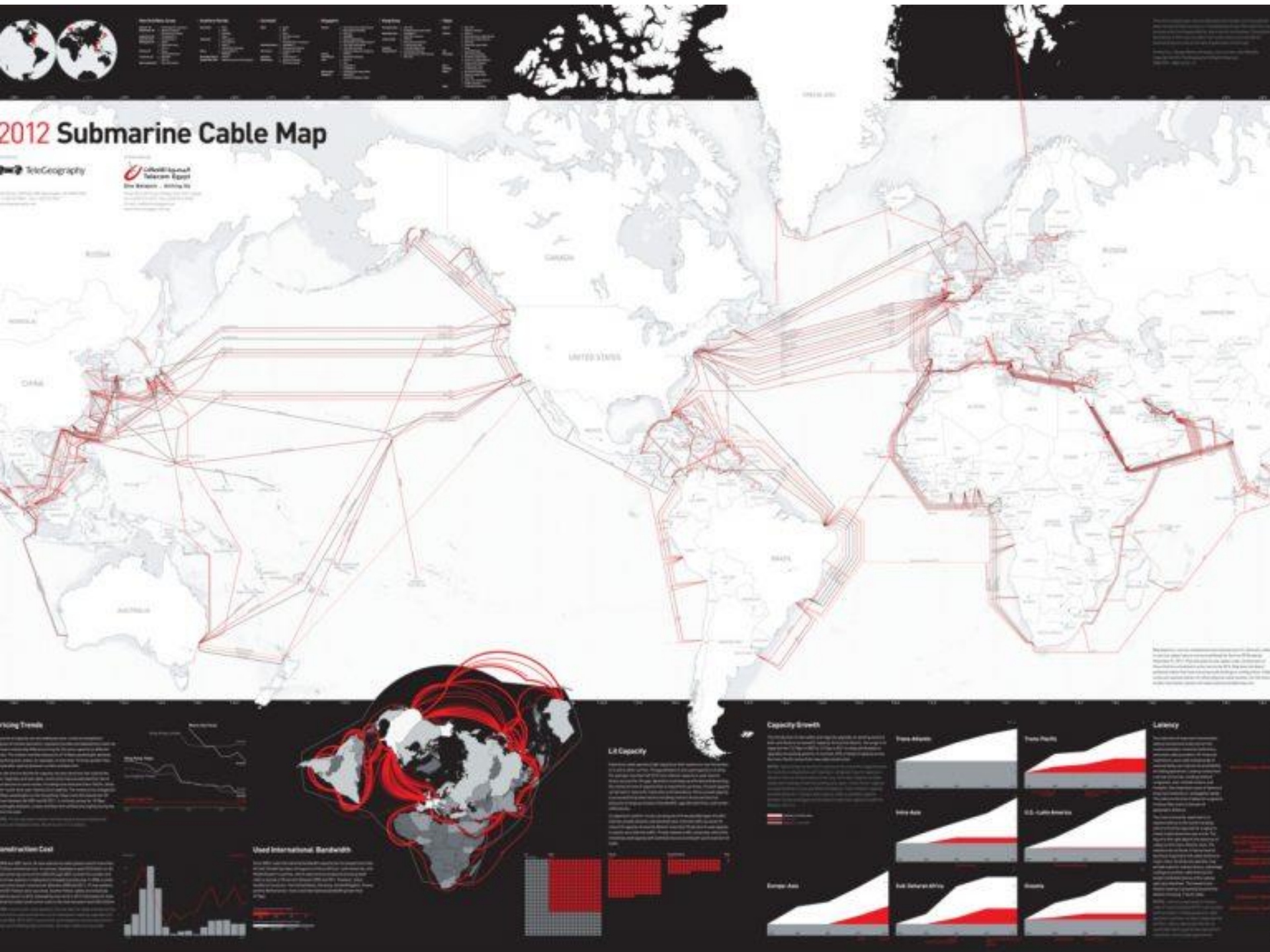
MAP SHEWING THE POSITION OF THE CABLE FROM LONDON TO NEW YORK.

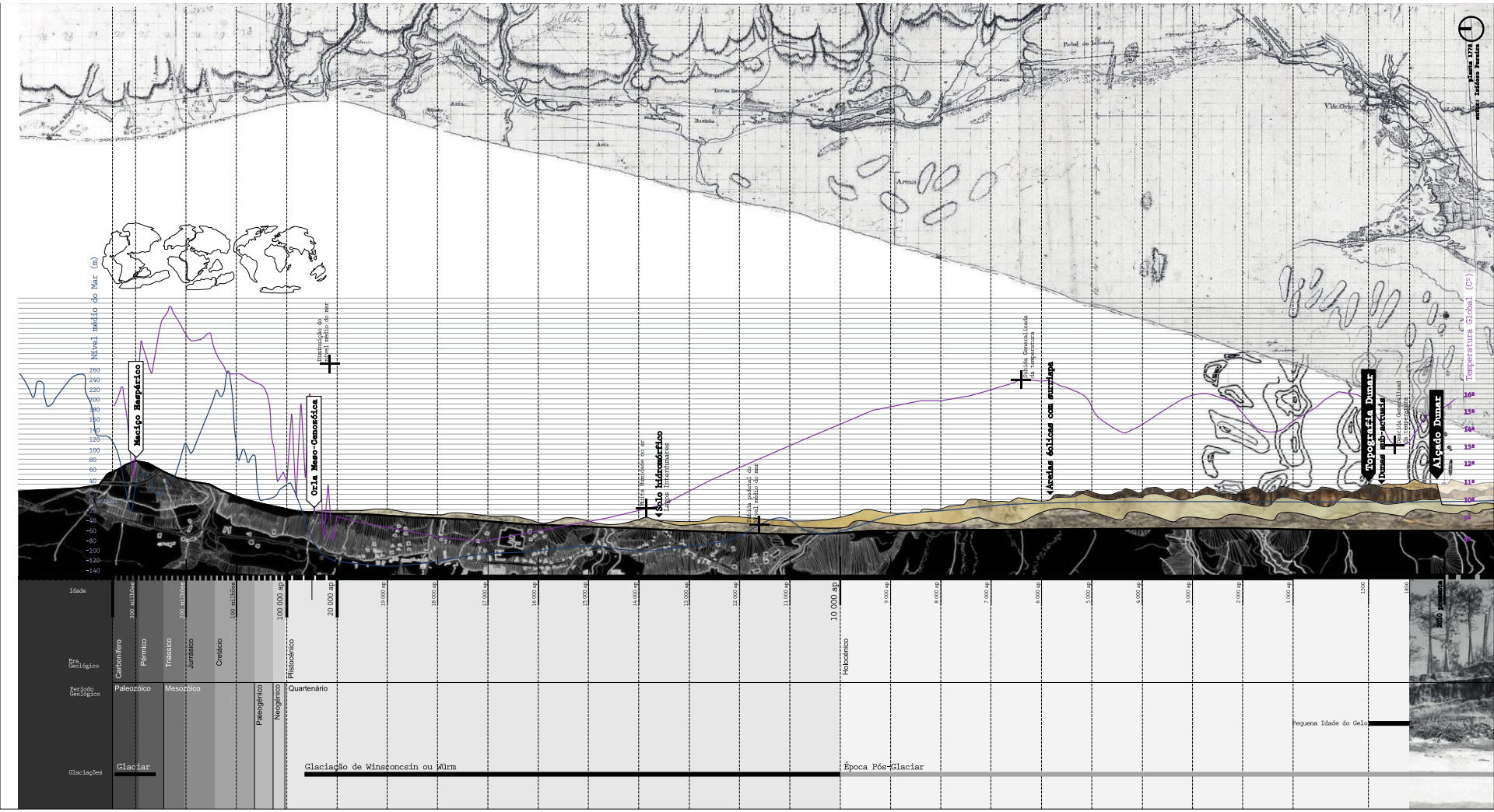
Map of the 1858 Atlantic Cable route. “Korff Brothers. Practical Lithographers, 54 William Street, New York”



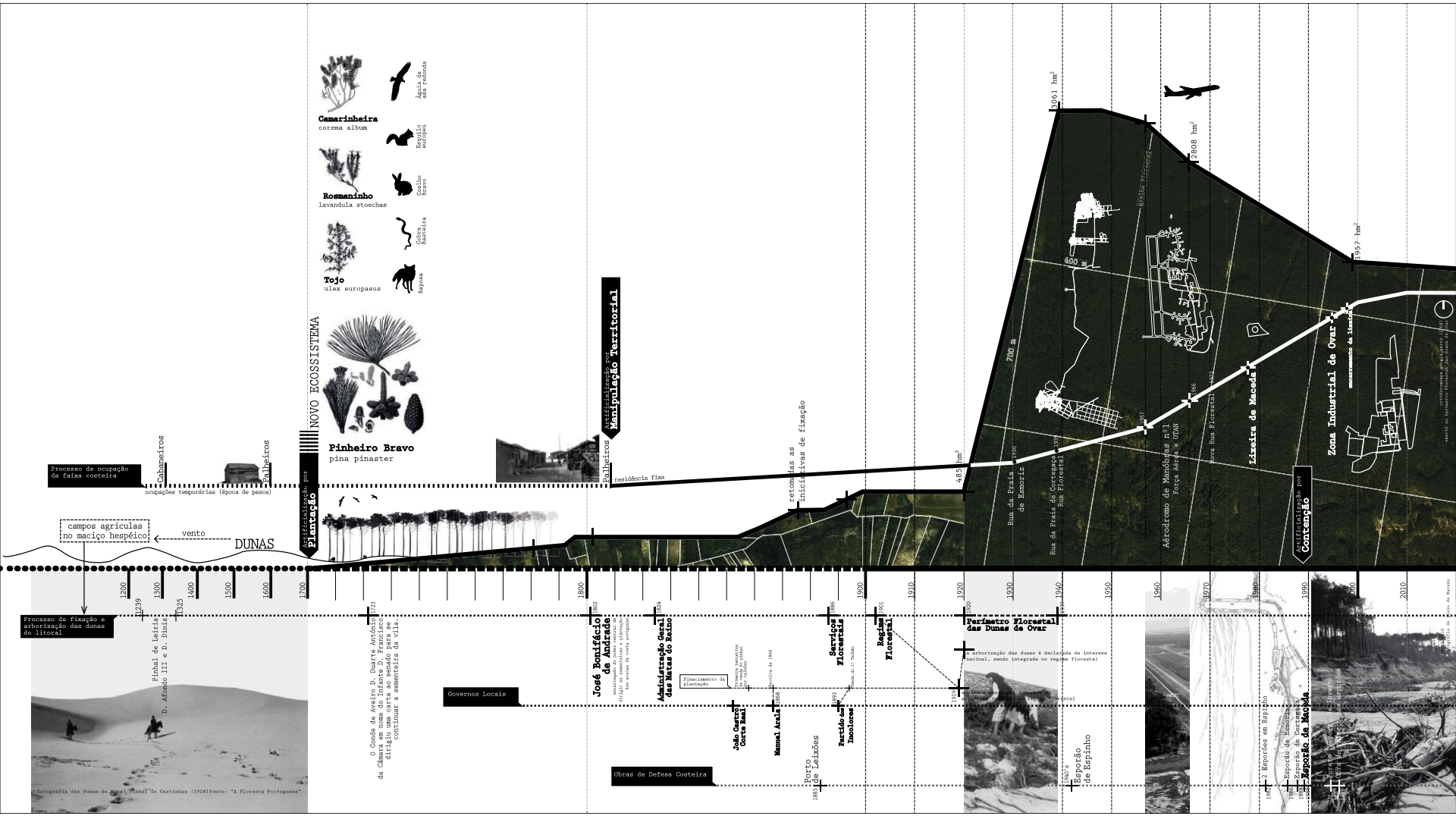
Map of the 1858 Atlantic Cable route from Frank Leslie’s Illustrated newspaper. 1858

2012 Submarine Cable Map





Projeto de interpretação e representação das dinâmicas costeiras do Perímetro Florestal das Dunas de Ovar.
Tese mestrado Daniel Duarte Pereira. EAUM 2011



Projeto de interpretação e representação das dinâmicas costeiras do Perímetro Florestal das Dunas de Ovar.
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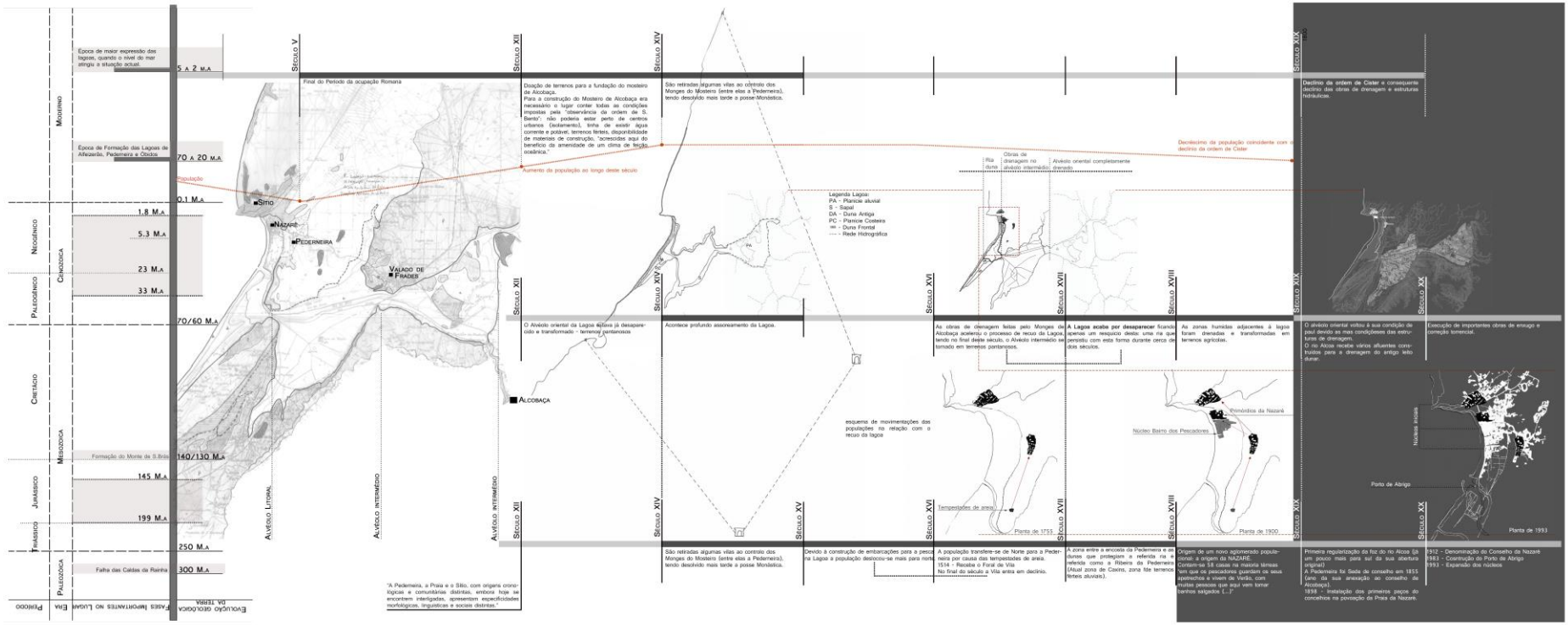
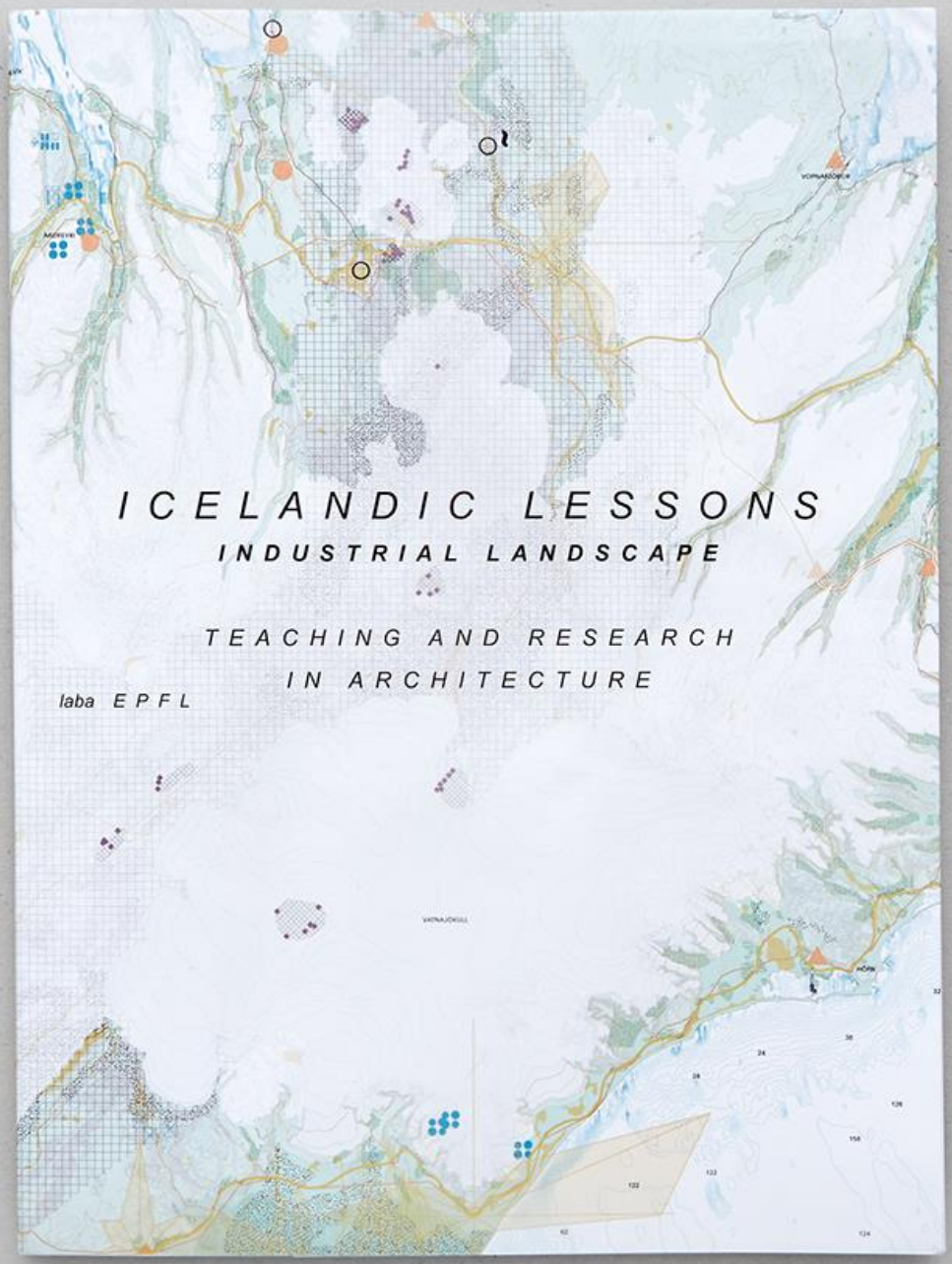


Fig. 48 | Mapeamento Cronológico das Transformações. Registra-se através da cronologia apresentada o mapear e relacionar da informação que se encontra dispersa sobre a transformação do lugar.

Projeto de representação da Impermanência.
Tese de mestrado Marisa Fernandes. EAUM 2014



Icelandic Lessons: Industrial Landscape. Teaching and Research in Architecture. Laboratory Basel (Laba), École Polytechnique Fédérale de Lausanne

AGRICULTURAL INDUSTRIES
EXISTING SITUATION

aritime Industries in Iceland are deep-
linked with the country's history and
e characterized by their remoteness,
sources, and proximity to the Arctic.

EXPEDITIONS AND DISCOVERIES A state originally settled by Norwegian Vikings, Iceland expanded its governance through a long history of conflicts and pacts. Naval activities, mainly fishing and navigation, along with growing international interest in the region, quickly made Iceland a gateway for Arctic exploration.

1 EXPLORATION TOWARDS THE NORTH POLE

Iceland's founding in 874 by Vikings went on Iceland's first noted settler, Ingolfur Arnarsson, spurred multiple expeditions in the region, thereby launching modern Arctic exploration.

2 FROM A DANISH COLONY TO A SOVEREIGN ISLAND

After its initial settlement, Iceland soon fell under Danish control, with colonial trade forming a vital part of Iceland's economy until it gained greater sovereignty and independence.

3 GREETINGS FROM THE SEA

Viking exploration and fishing form a fundamental part of Icelandic tradition and culture, even to this day.

ANALYSIS

MARITIME INDUSTRIES
EXPEDITIONS AND DISCOVERY

1 VESSEL HISTORY AND FIRST SETTLEMENT

Iceland industrialized as a result of the development of maritime transportation and fishing industries. Naval technologies also played a fundamental role in the expansion of the Icelandic territory.

1 MARE OVER TERRITORIAL WATERS

Exclusive economic zones give countries a means to take ownership of fish stocks surrounding their territory. Iceland's heavy economic reliance upon fishing lead to the establishment of a defined exclusive economic zone for Icelandic fishing upon the end of the Cod Wars with the U.K. in 1976.

Agricultural Industries consist of cultivating land and crops and rearing livestock. In Iceland, agriculture is the result of a fragile balance between land conditions and human activity.

SOIL CONDITIONS AND SENSITIVE VEGETATION Despite a large amount of land (103,000 km²) for a very low density of population 3 inh./km², cultivation in Iceland still represents a difficult activity despite modern technologies. Indeed, the farmers of this volcanic island have to cope with very harsh conditions combined with a very fragile vegetation. This is the main challenge that Icelandic agricultural industries have to face and probably one of the highest Icelandic ecological stakes.

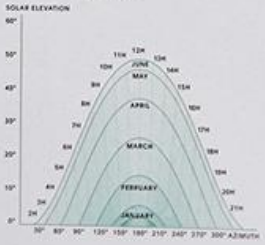
1 A VOLCANIC ISLAND

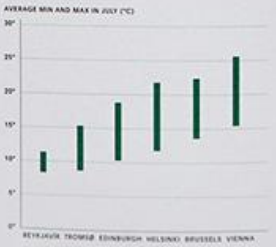
Survey of major eruptions according to the scale of ash desposits.

EXTENT OF 20CM THICK ASH DEPOSITS · VOLCANOES · TECTONIC PLATE LIMITS · CITIES · TOPOGRAPHY

2 CLIMATE

In the region of Reykjavik, the average temperature is about 10.5°C in July and 1.5°C in January. While suitable for human settlement, the climate never becomes warm enough to grow crops other than barley or grasses.





3 WIND IN ICELAND

Strong prevailing winds in addition to Iceland's low average temperature are the two main factors that lead to poor soil conditions on the island.

4 ARABLE LAND ON THE ISLAND

Located just 290 km from Greenland's coastline, Iceland's cool climate allows agriculture on no more than 24% of the island's land mass. Above an altitude of 200m, crops will not grow, and above 400m, no vegetation can grow. Due to the vast size of the country however, this 24% of arable land represents an area larger than Slovenia and close in size to Belgium.

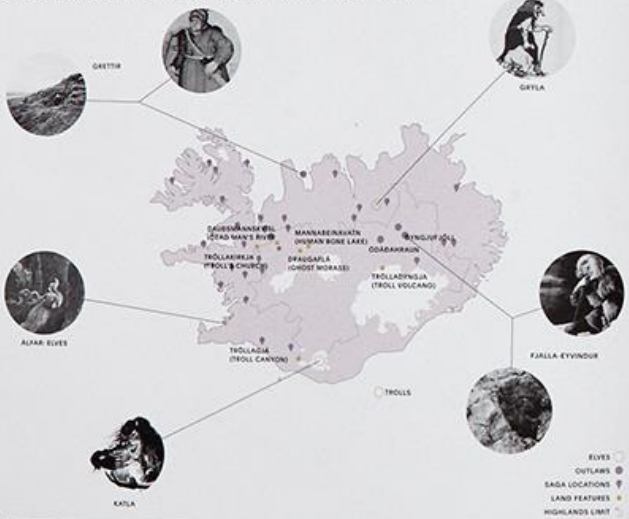
POTENTIAL ARABLE LAND
ALTITUDE 400 M - VEGETATION LIMIT
ALTITUDE 200 M - AGRICULTURE LIMIT

Tourism industries are an integral part of the Icelandic economy. In the year 2015, it is likely to become the country's largest export sector, overtaking fishing for the first time.

BACKGROUND The number of tourists in Iceland has tripled over the past 12 years, passing the threshold of 1 million tourists in 2013, compared to a local population of 325'671 people. Already today the effects of this rapidly expanding industry are evident all around the island: Massive tourism is damaging fragile ecosystems, and Icelandic cities are turning into tourist attractions with less space for the local population.

1 MYTHOLOGY AND NATURE

Tales of elves, trolls and outlaws, tied closely to the landscape, are embedded deeply in Icelandic culture. Historically, Icelandic nature was feared until its phenomena were explained by science.



2 TOURISM AND DISCOVERY

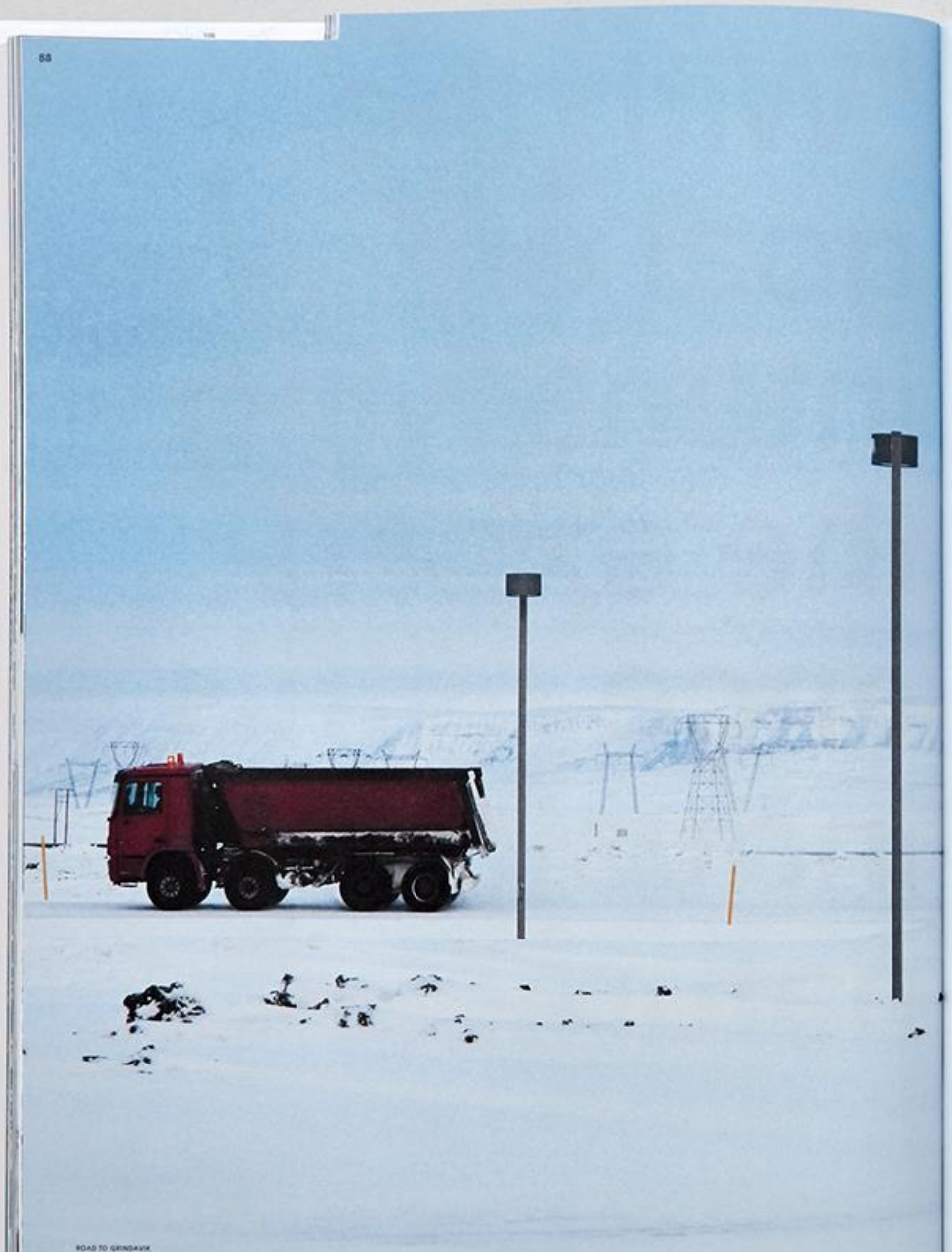
DEVELOPMENT OF TOURISM THROUGH DISCOVERY AND EXPLORATION

3 SETTLEMENT AND HISTORY

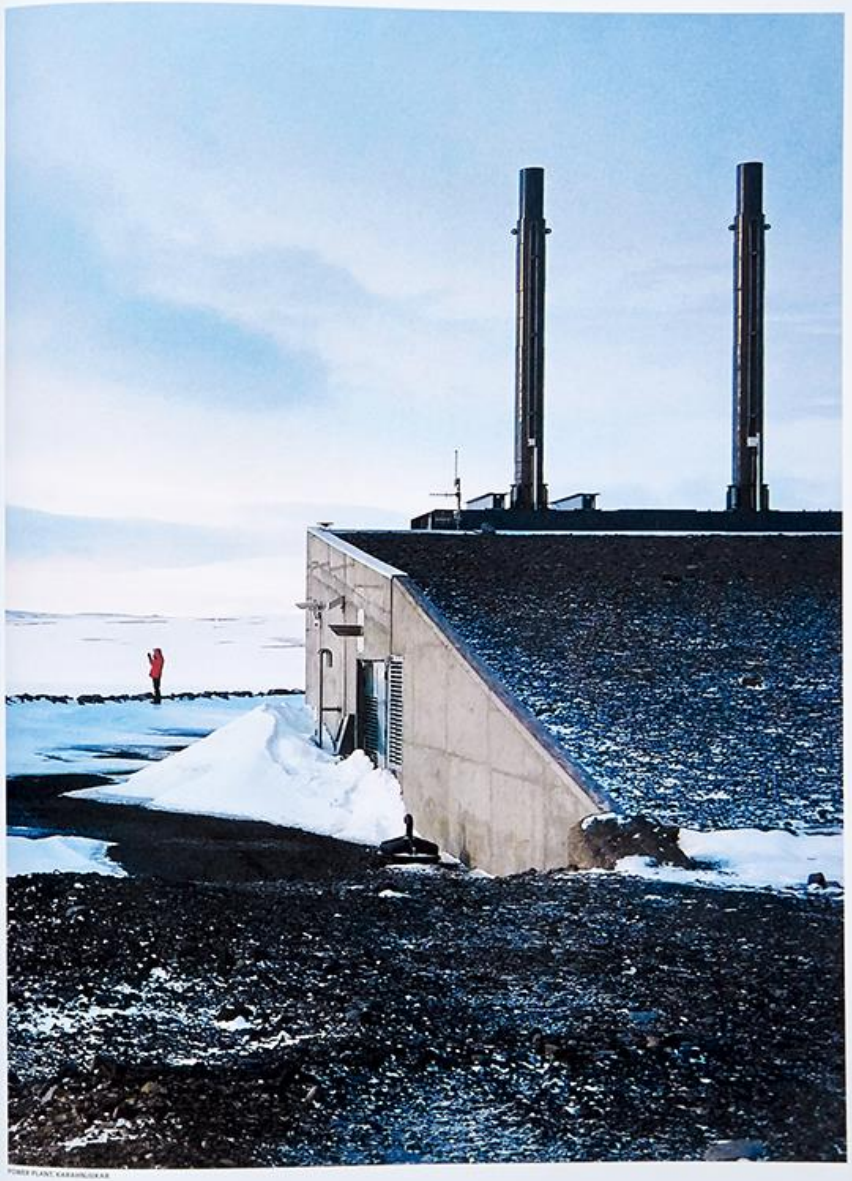
The original Viking settlers settled throughout the island in the 9th and 10th centuries, bringing with them a Nordic lifestyle of logging and grazing. Not suited to the island, this deforestation caused severe erosion, which in conjunction with extreme natural phenomena of strong wind, snow and ice, drove settlement to the coastline. As knowledge of the interior Highlands was gradually lost, it became feared, a fact which contributes to why it remains unsettled and largely unvisited to this day.

ICELAND IN 800 TO 1000 AD

ICELAND IN 2015



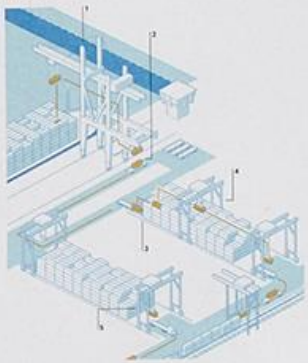
ROAD TO GRINDAVIK



POWER PLANT, KARAHNJUKAR

6 HIGH-TECH PORTS

AUTOMATED TERMINAL AT ROTTERDAM



EVOLUTION OF CRANE'S CAPACITY

INTERNATIONAL PORT INFRASTRUCTURE IS HEAVILY INFLUENCED BY TECHNOLOGICAL TRENDS IN THE INDUSTRY (LEFT):

1 REMOTE CONTROL CRANE LIFTS THE CARGO

2 TRANSIT OF CONTAINERS BY A FLATBED VEHICLE

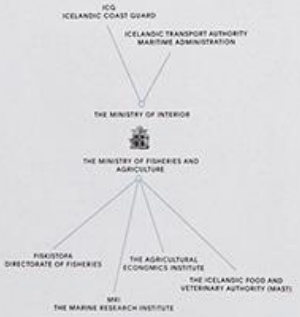
3 AUTOMATED FLATBED LIFTS THE CARGO ONTO STORAGE RACKS

4 CRANES ABOVE STORAGE RACKS ORGANIZE THE CONTAINERS

5 CARGO IS LOADED ONTO A TRUCK BED OR OTHER AUTOMATED VEHICLE AND IS THEN LOADED ONTO A TRAIN

7 MARITIME GOVERNANCE

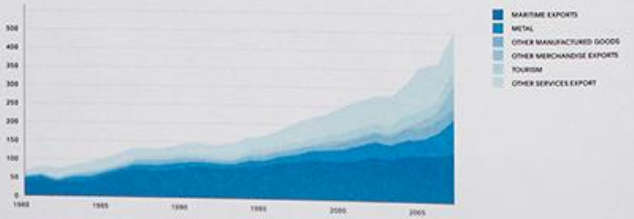
Maritime governance in Iceland musts allow the economical vitality of the fishing industry while developing its sustainability.



8 ICELANDIC FOREIGN TRADE

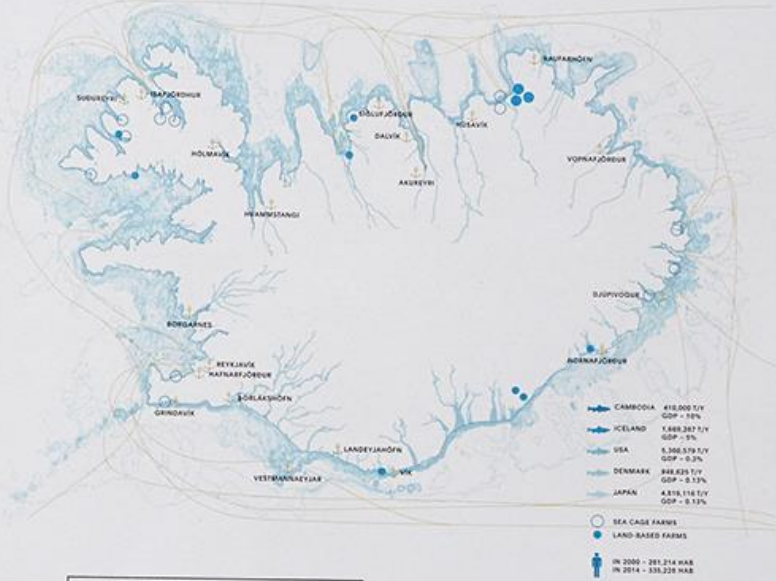
Iceland is a fairly open economy, with imports and exports of goods and services amounting to 46% and 35% of GDP respectively in 2007. Merchandise trade by category below:

EXPORTS OF GOODS AND SERVICES 1980–2007 IN BILLION ISK



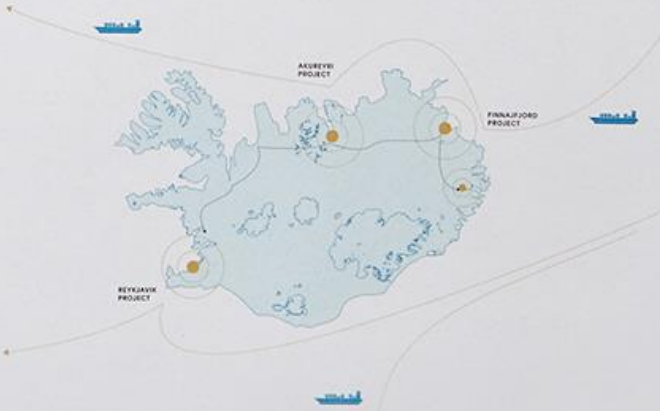
9 CURRENT PORTS AND TERRITORY MANAGEMENT

TODAY



10 TRANS-NATIONAL PORTS IN DEVELOPMENT

PROJECTS FOR TRANS-NATIONAL SHIPPING PORTS CAN PROMOTE ICELAND'S PLACE GLOBALLY

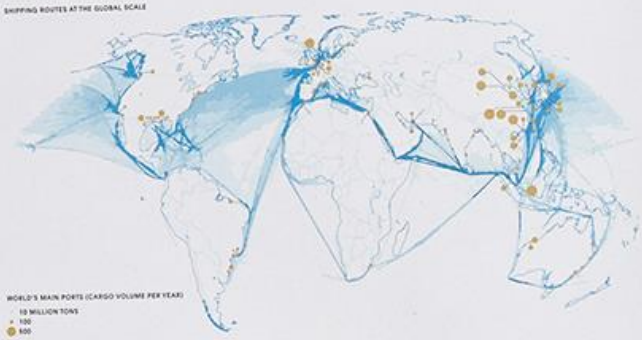


MARITIME INDUSTRIES

CURRENT STATE AND TRENDS Globalization and the growth in international shipping creates new possibilities for strategically located islands. Global warming, in addition to new technology and exploration, could open up the Northern Sea Route through the Arctic as a potential new trunk route, with Iceland poised to benefit from its strategic location. Port technology, vessel improvement and territory management are important issues that Iceland must keep in mind for this budding industry.

1 SHIPPING ROUTES

SHIPPING ROUTES AT THE GLOBAL SCALE



WORLD'S MAIN PORTS (CARGO VOLUME PER YEAR)

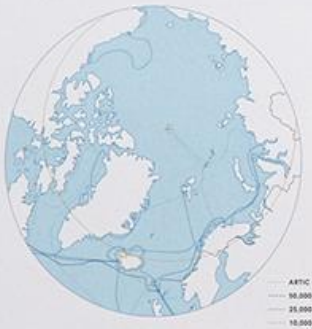
10 MILLION TONS

100

500

2 OPPORTUNITIES IN THE ARCTIC REGION

CO2 EMISSIONS PER ROUTE, IN KG.



ARTIC CIRCLE

50,000–100,000

25,000–50,000

10,000–25,000

DEPTHS OF FISHING AREAS

100–500 M

25–100 M

1–25 M

SHIPPING ROUTE POTENTIAL WITH MELTING ICE CAPS

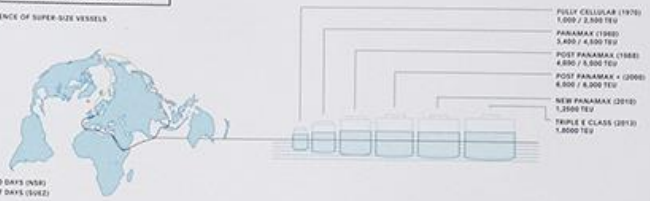
SHIPPING ROUTES

ICE CAP OUTLINES

ICELAND'S LATENT SHIPPING INDUSTRY POTENTIAL

3 SHIPPING VESSEL GROWTH

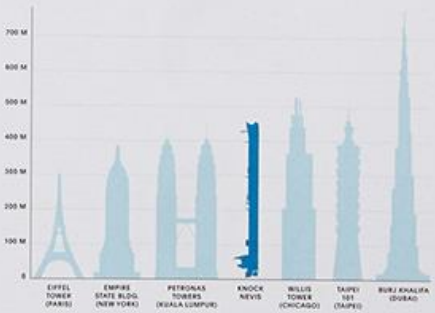
EMERGENCE OF SUPER-SIZE VESSELS



TRIPLE E CLASS VESSEL SECTION

4 SUPERTANKERS

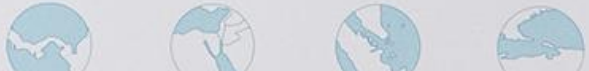
A comparison of supertanker length to building heights shows their extreme proportions. Such vessels have become standard and influence the size of modern port infrastructure.



THE IMMENSE SIZE AND DEPTH OF SUPERTANKERS HEAVILY RESTRICTS THEIR NAVIGATION, WITH SUCH SHIPS UNABLE TO PASS THROUGH THE PANAMA AND SUEZ CANALS.

LENGTH:	458 METERS
DEPTH:	25 METERS
SUPPORT:	649,950 TONNES
SPEED:	13 KNOTS
POWER:	37,300 KW
CREW:	40 PEOPLE

5 MAIN STRAITS AND CANALS



PANAMA CANAL

LENGTH:	366 M
BEAM:	49 M
DRAFT:	15.2 M
CAPACITY:	13,000 TEU
TONNAGE:	120,000 DWT

SUEZ CANAL

LENGTH:	193 M
BEAM:	77.5 M
DRAFT:	20 M
CAPACITY:	18,000 TEU
TONNAGE:	200,000 DWT

MALACCA STRAIT

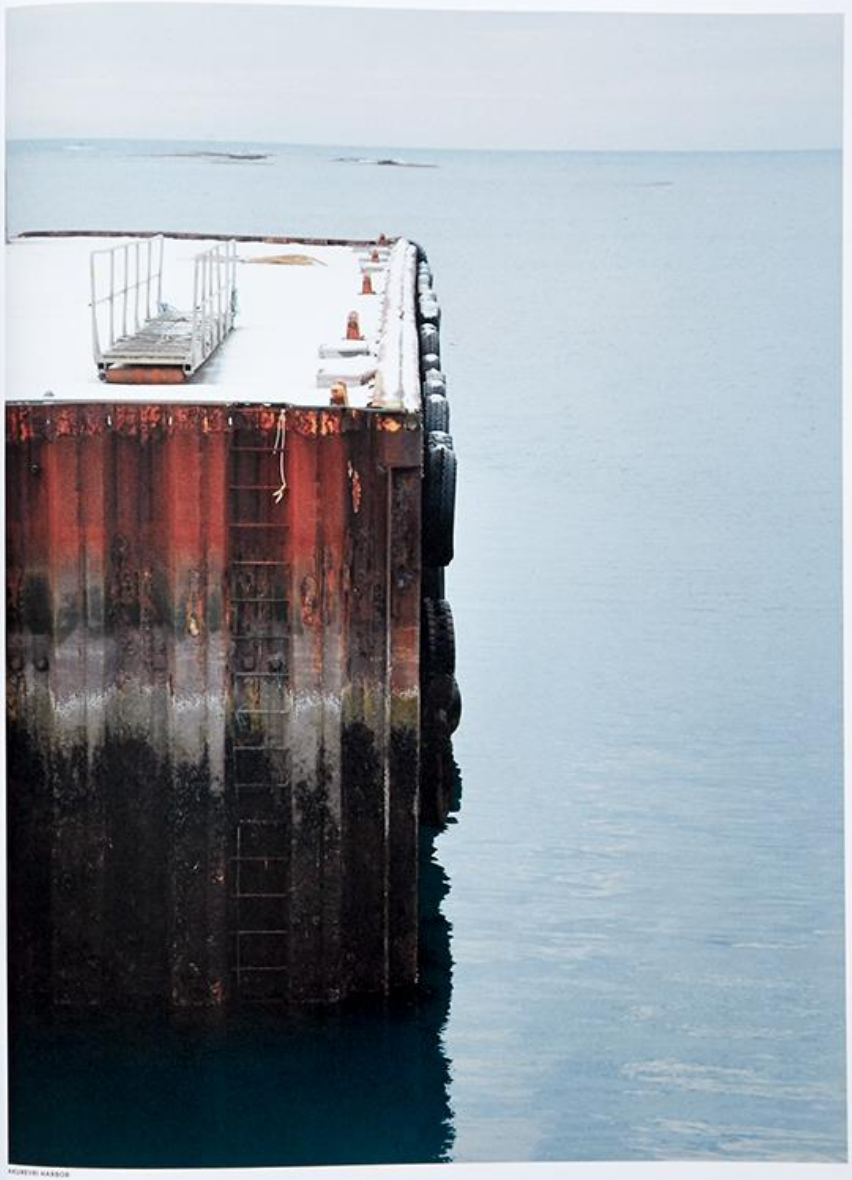
LENGTH:	400 M
BEAM:	60 M
DRAFT:	21 M
CAPACITY:	18,000 TEU
TONNAGE:	240,000 DWT

KARA STRAIT

LENGTH:	N/A
BEAM:	~30 M
DRAFT:	~18 M
CAPACITY:	4,500 TEU
TONNAGE:	80,000 DWT

GEYSIR

MID-ATLANTIC RIDGE



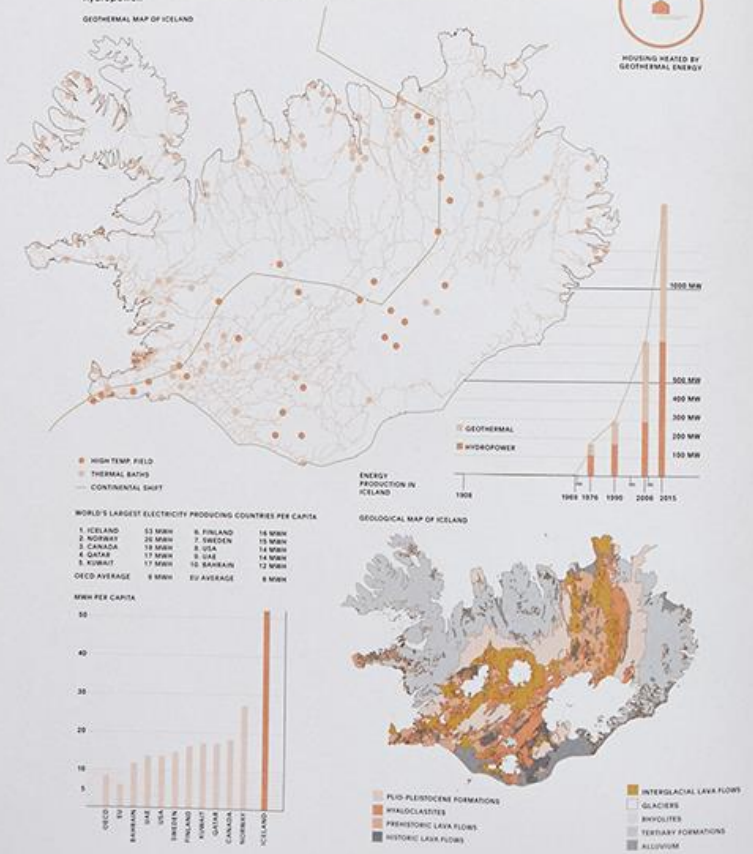
AKUREYRI HARBOR

Energy industries in Iceland rely on considerable renewable energy resources, particularly geothermal energy and hydropower. They are the world's largest electricity producer per capita.

GEOTHERMAL AND HYDROELECTRIC ENERGY Because Iceland sits upon the Mid-Atlantic Ridge, it has extensive volcanic and geothermal activity. As the North American tectonic plate moves westward and the Eurasian plate moves eastward, new crust is created on both sides of the diverging boundary. While this process adds mass to Iceland on both sides of the boundary, it also creates a rift along the boundary.

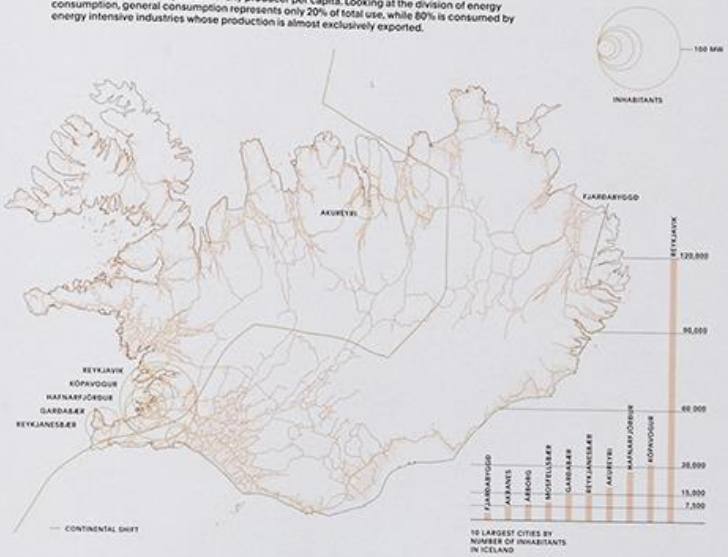
1 GEOTHERMAL AND HYDROELECTRIC ENERGY

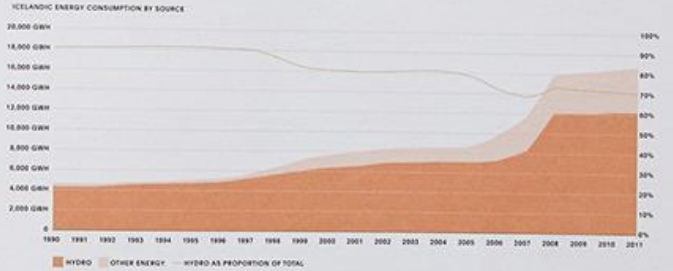
Iceland has considerable renewable energy resources, particularly geothermal energy and hydropower.



2 SETTLEMENT AND ENERGY USAGE

Iceland is the world's largest electricity producer per capita. Looking at the division of energy consumption, general consumption represents only 20% of total use, while 80% is consumed by energy intensive industries whose production is almost exclusively exported.





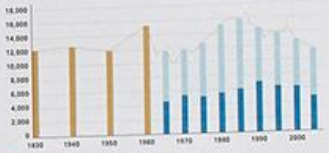
3 ENERGY GOVERNANCE

MARITIME INDUSTRIES
EXPLOITATION AND PERMANENT SETTLEMENT The modernization of trading and exploitation technologies began Iceland's economic development. The Arctic, as a strategic region filled with natural resources, proved to be a tremendous asset in improving Iceland's economic standing and wealth as compared to other European countries.

1 GENERAL ECONOMIC NUMBERS

Fishing industries comprise an important part of Iceland's economy to this day. After declines due to overfishing, they have recently rebounded with an emphasis on efficiency and innovation.

EMPLOYMENT BY MAN-YEARS IN FISHERIES

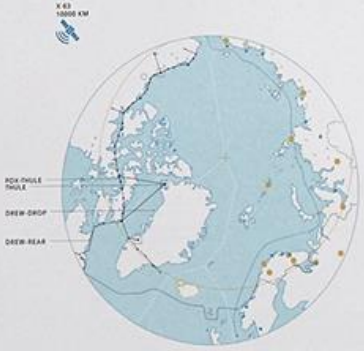


FISHING INDUSTRIES EMPLOY 7% OF THE ICELANDIC WORKFORCE AND REPRESENT 42% OF THE TOTAL EXPORT.
TOTAL POPULATION OF ICELAND: 322,000 (2015).

FISHING INDUSTRIES BY PERCENTAGE OF TOTAL GDP

2 FISHING TECHNOLOGICAL DEVELOPMENT

DREW RADAR LINE AND RESEARCH INFRASTRUCTURE DURING COLD WAR



LENGTH: 50 METERS
TONNAGE: 731 TONNES
DAYS AT SEA: 5 DAYS
POWER: 2,000 HP
NET SIZE: 60 X 35 METERS
STORAGE: 650 TONNES
PROCESSING: 80 TONNES A DAY
CREW: 18

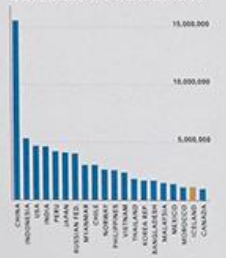
TRAWLER:
THE FIRST TRAWLER USED IN ICELANDIC WATERS WAS A BRITISH TRAWLER IN 1890. THE TRAWLERS BROUGHT WITH THEM MANY OPPORTUNITIES AND BENEFITS, SUCH AS BETTER CREW CONDITIONS, THE ABILITY TO FISH THROUGHOUT THE YEAR AND CARRY CONSISTENT CATCHES.

LENGTH: 150 METERS
BEAM: 30 METERS
HEIGHT: 55 METERS
SUPPORT: 1,210 TONS
SPEED: 18 KNOTS
SUPPORT: 23,000 TONS
CREW: 138–200

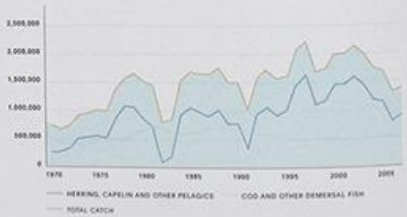
ICEBREAKERS:
DESIGNED TO MOVE AND NAVIGATE THROUGH ICE-COVERED WATERS. ICEBREAKERS PROVIDE SAFE WATERWAYS FOR OTHER BOATS AND SHIPS, WITH THE HELP OF EXTERNAL COMPONENTS TO THE SHIP'S PROPULSION SYSTEM. ICEBREAKERS CAN FORCE THROUGH ICE AT SPEEDS UP TO 10 KNOTS.

3 A MAJOR PLAYER IN THE GLOBAL MARKET

TOTAL FISHERY CATCH BY TOP 20 COUNTRIES IN 2010 (T)



FISH CATCH BY ICELANDIC VESSELS 1870–2007 IN TONNES



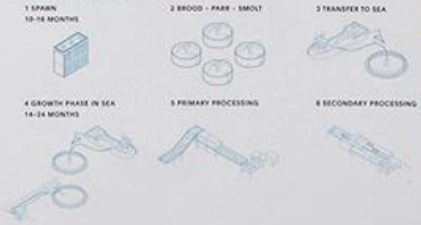
FISHING INDUSTRY 1900–2000 AND WILD CATCH AREAS

4 AQUACULTURE IN RESPONSE TO OVERFISHING

The rapid development of fishing technology in the 20th century quickly led to the unsustainable over-exploitation of marine resources. Aquaculture as a new technology has helped to reduce the effects of over-fishing but is still not a sustainable alternative.

THE AQUACULTURE PROCESS

THE SALMON LIFE PRODUCTION CYCLE IN AQUACULTURE



CURRENT STATE: WILD CATCH / AQUACULTURE BY %

WILD CATCH : 99.4 %
AQUACULTURE : 0.6 %

SVALBARD – GRØNLAND

BARENTSHAVET

BARENTS LESSONS

TEACHING AND RESEARCH IN ARCHITECTURE

CLIMATE

ATMOSPHERE The atmosphere is a content of different layers of gases surrounding the Earth's surface, forming the Earth's climatic mass, composed mainly of nitrogen (N2), dinitrogen (O2), argon (Ar) and carbon dioxide (CO2).

1 GLOBAL TEMPERATURE ANOMALY 2000–2009

2 NEED FOR THE GREENHOUSE EFFECT

Greenhouse gases are needed to maintain a livable temperature on earth, but the deregulation of their concentration can create serious overheating.

3 ARCTIC TEMPERATURE

4 TEMPERATURE SUMMER (JUN–JUL AVERAGE)

TEMPERATURE WINTER (DEC–JAN AVERAGE)

5 ALMOST A DESERT

The arctic climate is dry with little precipitations. Rainfall is rare but heavy during the winter polar low, when warmer and wet air from the south (Atlantic) meets the cold and dry arctic air. Compared with the world average, the Barents region is almost a desert.

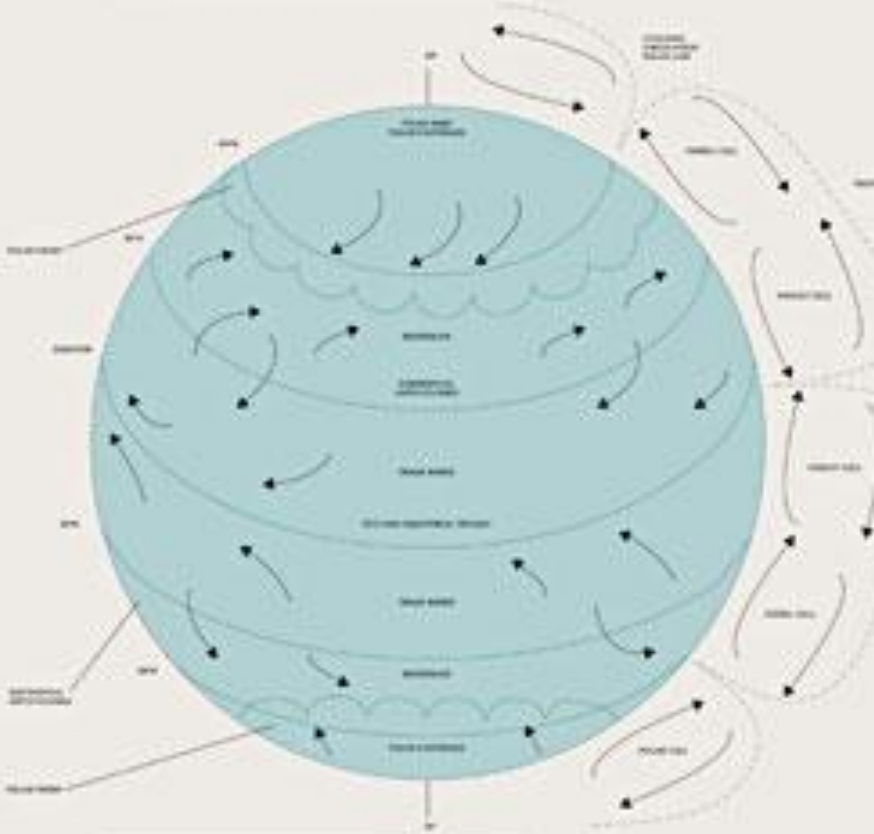
Precipitation
World annual: 1000mm
Barents annual: 500mm
Desert annual: <250mm
Switzerland annual: 1500mm

ARCTIC

CLIMATE
ATMOSPHERE

6 WINDS AROUND THE WORLD

The Barents region is at the border of two of the earth's main wind cells: the Polar cell and the Ferrel cell. This polar front border creates curiously circulations called the "polar low".



7 BARENTS SEA: PREVAILING WINTER WINDS

In winter, strong, cold, and regularly orientated winds from the south prevail.

SUMMER

In summer, changeable, dry winds from the North Pole meet southern winds from the Atlantic. It is generally less windy.

Resources The Barents Sea is characterised by an extreme wealth of natural resources, both living and fossil. Access to these resources has been the basis of human interaction with the territory throughout history.

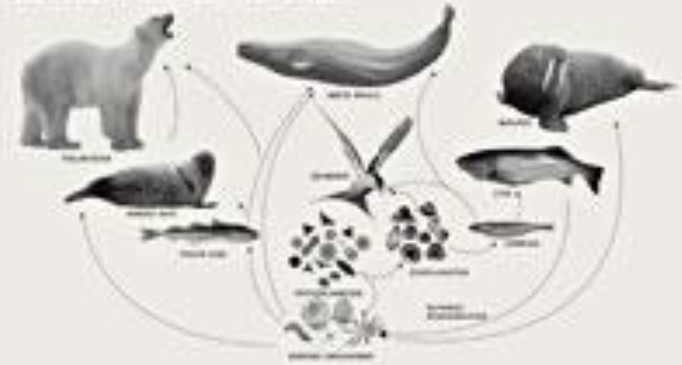
PRIMARY PRODUCTION Due to the meeting of different ocean currents and the shallowness of the water, the production of phytoplankton is particularly high in the Barents Sea. This important source of nutrients makes up the first step in the ocean food chain. Rare cold-water coral reefs and marine forests can also be found here.

1 PLANKTON, CURRENTS, BENTHIC ORGANISMS

High primary production areas coastal areas and polar front. Areas with a high density of benthic organisms are an important source of nutrients for marine life.

ANALYSIS

RESOURCES
PRIMARY PRODUCTION

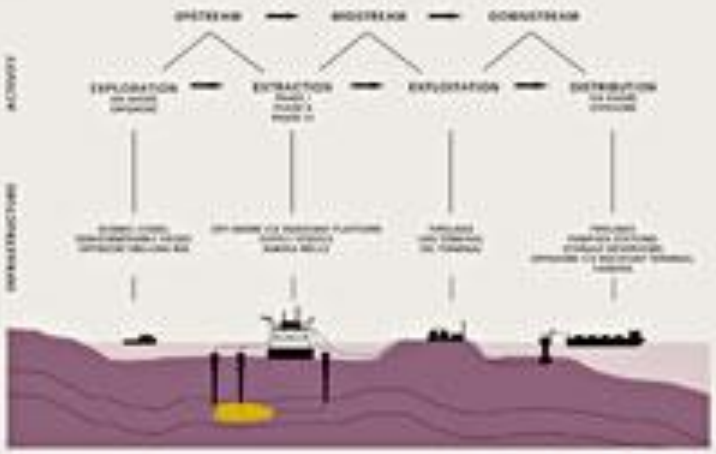


SEABIRDS Large fish stocks, zooplankton and the fortunes of explorers at the ice edge constitute the food for some of the largest seabird aggregations in the world. More than 30 seabird species breed in a single number of different island communities.

INFRASTRUCTURE

FOSSIL FUELS The first oil field in the Barents region was discovered in 1953 in West Siberia. Since the 1980s when Hamsilla, the biggest on-shore Russian oil field started production, many new fields were discovered further north. Today, Russia is one of the world's largest producers of oil and gas and has already started significant offshore production in the Barents Sea.

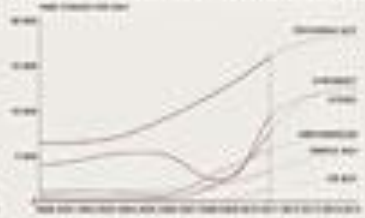
1 OFF SHORE ICE CLASS PRODUCTION



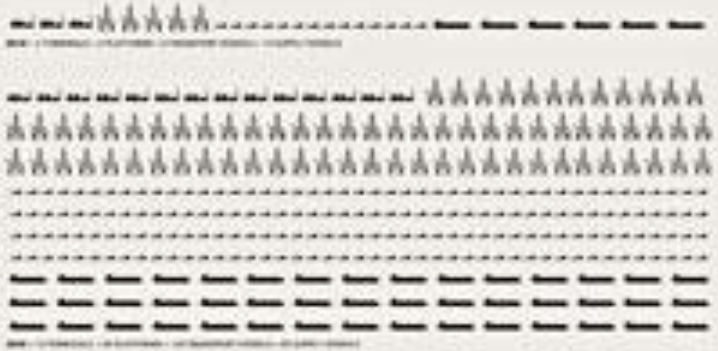
2 OFFSHORE IN THE BARENTS SEA 2030

3 OIL PRODUCTION

4 HARBOUR CAPACITY IN THE BARENTS REGION



5 OFFSHORE PETROLEUM INFRASTRUCTURE IN THE BARENTS SEA



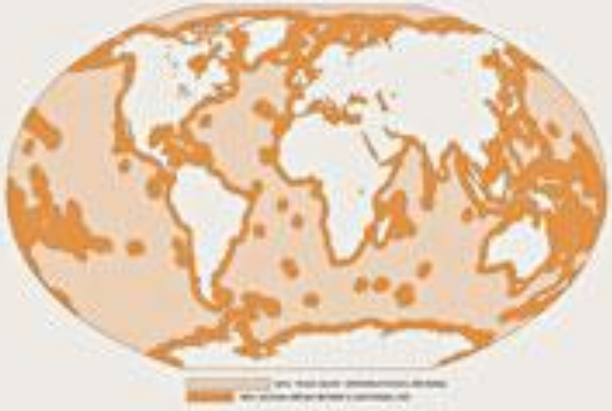
6 PERMAFROST THAWING

Permafrost thawing, a consequence of global warming causes serious and unstable ground. This phenomenon is an important threat to infrastructure in northern Russia.

Governance refers to the introduction of new modes of piloting or flexible and ethical regulations, based on an open and informed partnership between different actors and stakeholders, both on the local and global scale.

GOVERNANCE OF THE OCEAN has become progressively more clearly defined. The United Nations Convention on the Law of the Sea (UNCLOS) is the comprehensive legal instrument developed for this purpose, which entered into force in 1994, first ratified by 60 states. "High Seas", outside a state's exclusive economic zone of 200 nautical miles, are recognised as a Common Heritage of Mankind.

1 DIVISION OF THE SEA

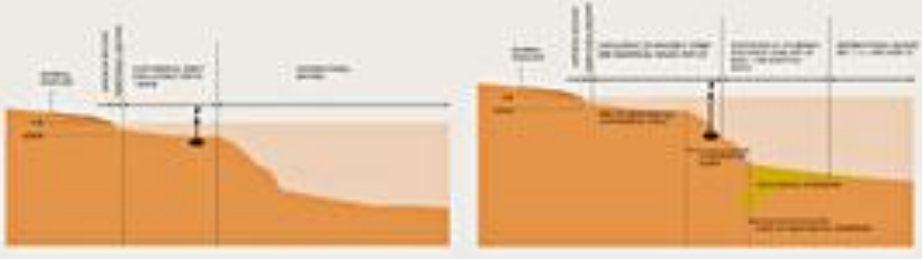


2 CONTINENTAL SHELF (UNCLOS I), GENEVA, 1958

The first United Nations Conference on the Law of the Sea finalised four conventions, prepared between 1949 and 1958. The Convention on the Continental shelf foresees offshore exploration and exploitation to a depth of 200m.

3 UNCLOS III, MONTEGO BAY, 1982

The third Convention defined sovereign rights to coastal states for:
- a territorial sea to a distance of 12 nautical miles;
- an exclusive economic zone to a distance of 200 nautical miles offshore;
- the extension of the continental shelf (the national area of the seabed) for exploration and exploitation, under specified circumstances.



GOVERNANCE

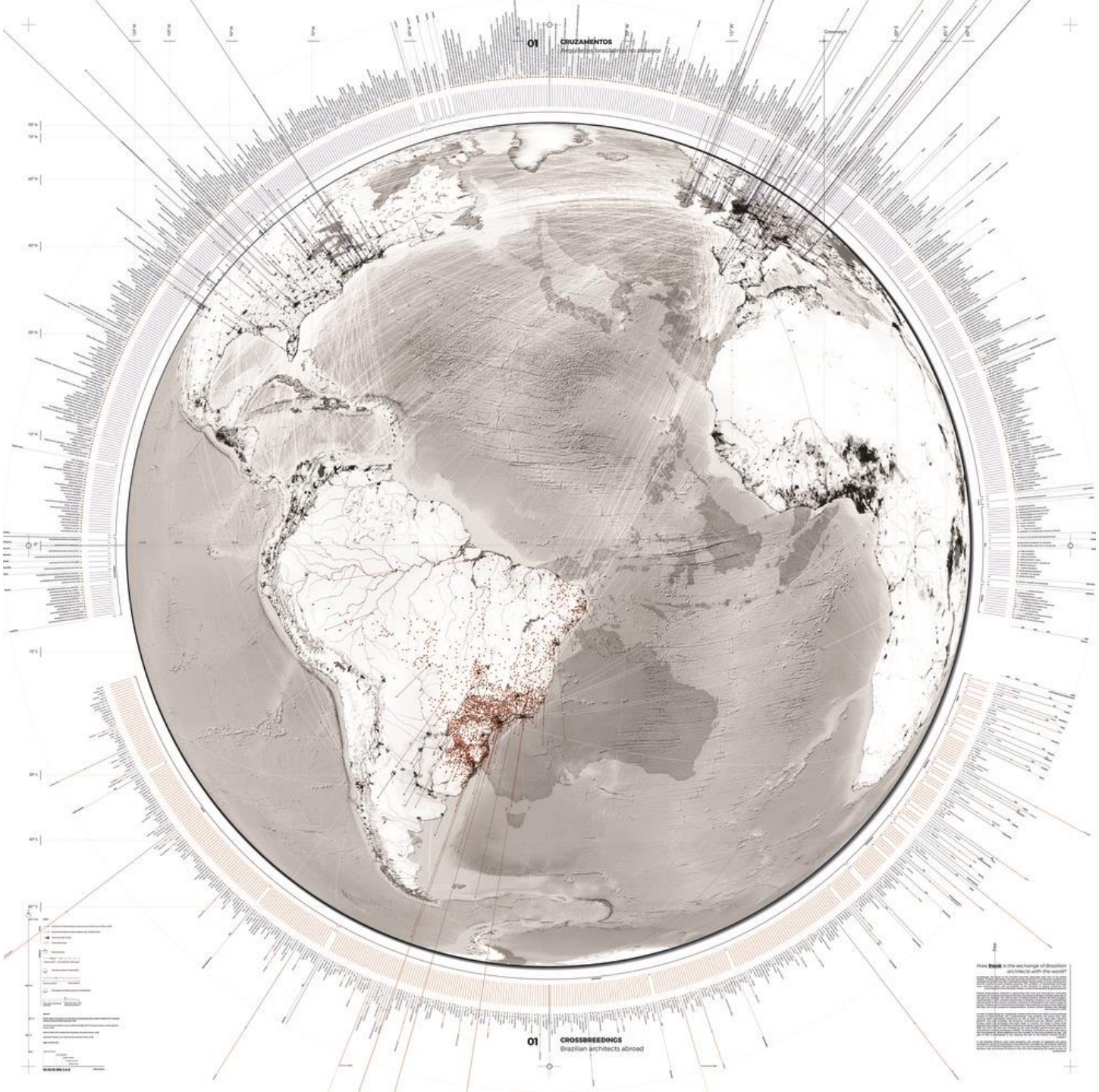
GOVERNANCE OF THE ARCTIC Historically the Arctic region was divided into two political blocs, both members of separate alliances. However, the development of the Arctic Council began in 1991 with the signing of an environmental protection strategy by the eight Arctic countries—states with territory in the Arctic. Observer status can also be granted to non-Arctic states on approval by the Council.

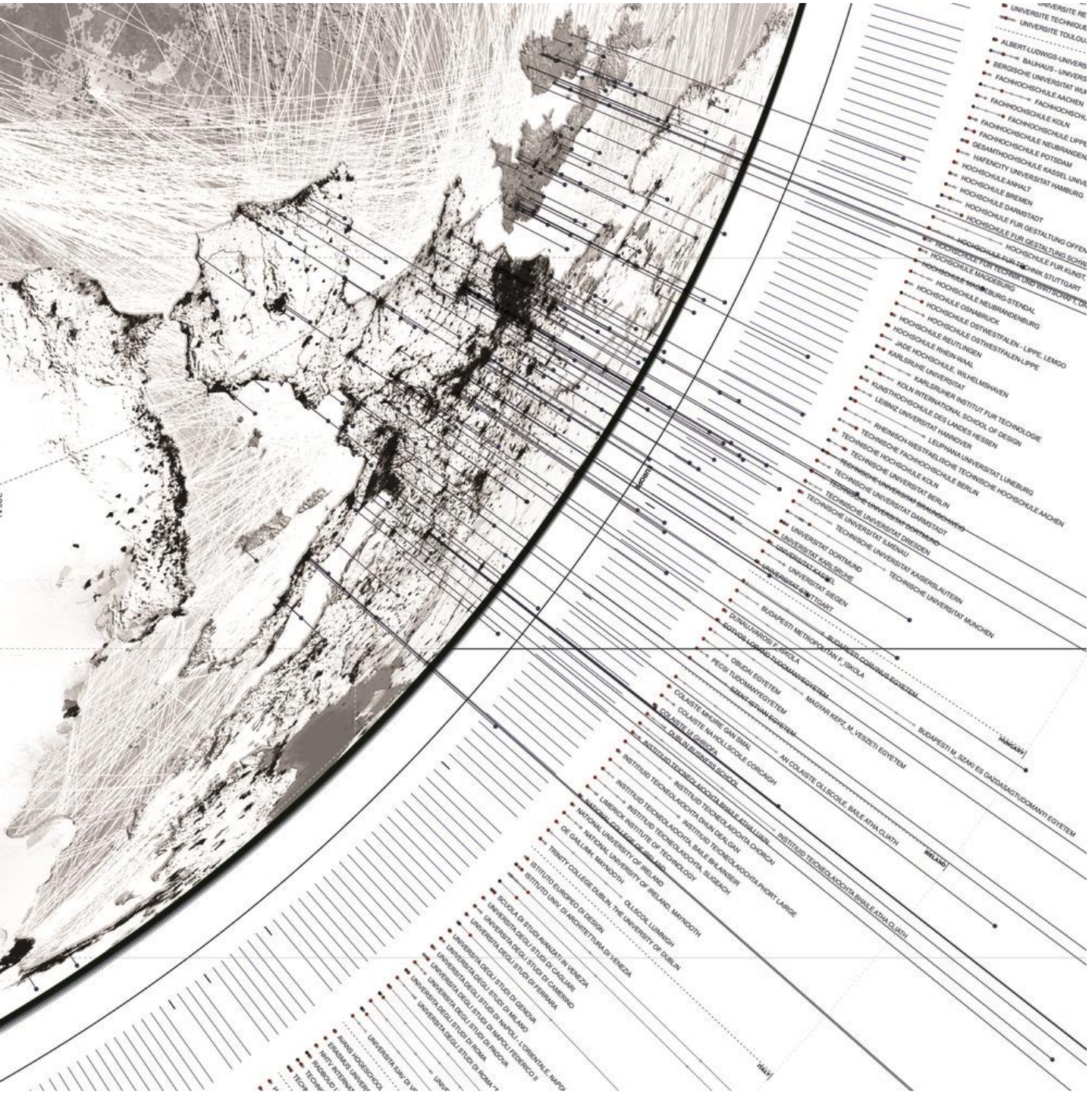
4 A BIPOLAR WORLD—THE TWO BLOCS

5 THE CIRCUMPOLAR GOVERNMENTS

6 ETHNIC GROUPS IN THE ARCTIC

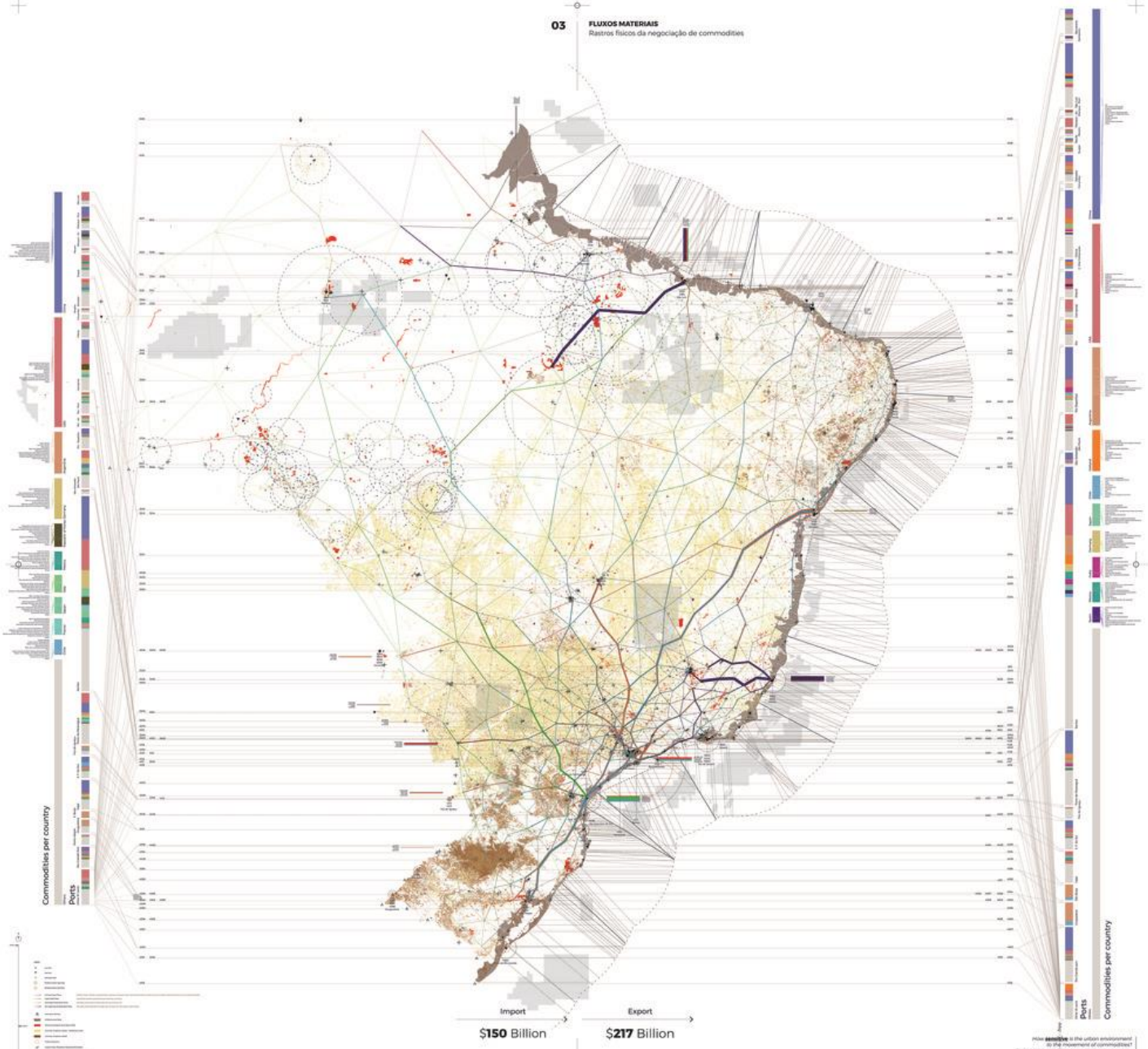
The Cartographies of the Brazilian Pavilion at the Venice Biennale 2018


01
CRUZAMENTOS
Arquitetos brasileiros no exterior
01
CROSSBREEDINGS
Brazilian architects abroad


UNIVERSITE RE
UNIVERSITE TECHNIQUE
UNIVERSITE TOULOU
ALBERT-LUDWIGS-UNIVERS
BAUHAUS - UNIVERS
BERGISCHE UNIVERSITAT WU
FACHHOCHSCHULE AACHEN
FACHHOCHSCHU
FACHHOCHSCHULE KOLN
FACHHOCHSCHULE LIPPE
FACHHOCHSCHULE NEUBRANDEN
GESAMTHOCHSCHULE POTSDAM
HAFENCITY UNIVERSITAT HAMBURG
HOCHSCHULE ANHALT
HOCHSCHULE BREMEN
HOCHSCHULE DARMSTADT
HOCHSCHULE FUR GESTALTUNG OFFEN
HOCHSCHULE FUR GESTALTUNG SCHW
HOCHSCHULE FUR KUNST,
HOCHSCHULE FUR TECHNIK STUTTGART
HOCHSCHULE MAGDEBURG
HOCHSCHULE NEUBRANDENBURG
HOCHSCHULE OSNABRUCK
HOCHSCHULE OSTWESTFALEN - LIPPE, LEMGO
HOCHSCHULE REUTLINGEN
HOCHSCHULE RHEIN-WAAL
JADE HOCHSCHULE WILHELMSHAVEN
KARLSRUHE UNIVERSITAT
KUNSTHOCHSCHULE DES LANDES HESSEN
LEIBNIZ UNIVERSITAT HANNOVER
RHEINISCH-WESTFALISCHE TECHNISCHE HOCHSCHULE AACHEN
TECHNISCHE HOCHSCHULE BERLIN
TECHNISCHE UNIVERSITAT BERLIN
TECHNISCHE UNIVERSITAT DARMSTADT
TECHNISCHE UNIVERSITAT DRESDEN
TECHNISCHE UNIVERSITAT ILMENAU
TECHNISCHE UNIVERSITAT KAISERSLAUTERN
TECHNISCHE UNIVERSITAT MUNCHEN
UNIVERSITAT DORTMUND
UNIVERSITAT KARLSRUHE
UNIVERSITAT KASSEL
UNIVERSITAT SIEGEN
UNIVERSITAT STUTTGART
BUDAPESTI METROPOLITAN F. ISKOLA
DUNAUJVAROSI F. ISKOLA
EOTVOS LORAND TUDOMANYEGYETEM
OBUDAI EGYETEM
PECSI TUDOMANYEGYETEM
SZENT ISTVAN EGYETEM
MAGYAR KEPZ_M. VERSZETI EGYETEM
BUDAPESTI CORVINUS EGYETEM
BUDAPESTI M. SZAKI ES GAZDASAGTUDOMANYI EGYETEM
HUNGARY
COLAISTE MHUIRE GAN SMAL
COLAISTE NA HOLLSCOILE, CORCAIGH
AN COLAISTE OLLSCOILE, BAILE ATHA CLIATH
DUBLIN BUSINESS SCHOOL
INSTITIUID TEICNEOLAIOCHTA BHAILE ATHA CLIATH
IRELAND
INSTITIUID TEICNEOLAIOCHTA AIRCIL
INSTITIUID TEICNEOLAIOCHTA DHUN DEALGAN
INSTITIUID TEICNEOLAIOCHTA GHAIRIA
INSTITIUID TEICNEOLAIOCHTA, BAILE BHLAINSIR
INSTITIUID TEICNEOLAIOCHTA, SLIGEACH
LIMERICK INSTITUTE OF TECHNOLOGY
NATIONAL COLLEGE OF IRELAND
NATIONAL UNIVERSITY OF IRELAND
OE GAILLIMH, MAYNOOTH
TRINITY COLLEGE DUBLIN, THE UNIVERSITY OF DUBLIN
OLLSCOIL LUIMNIGH
ISTITUTO EUROPEO DI DESIGN
ISTITUTO UNIV. DI ARCHITETTURA DI VENEZIA
SCUOLA DI STUDI AVANZATI DI VENEZIA
UNIVERSITA DEGLI STUDI DI CAGLIARI
UNIVERSITA DEGLI STUDI DI CAMERINO
UNIVERSITA DEGLI STUDI DI FERRARA
UNIVERSITA DEGLI STUDI DI GENOVA
UNIVERSITA DEGLI STUDI DI MILANO
UNIVERSITA DEGLI STUDI DI NAPOLI - L'ORIENTALE, NAPOL
UNIVERSITA DEGLI STUDI DI NAPOLI FEDERICO II
UNIVERSITA DEGLI STUDI DI PADOVA
UNIVERSITA DEGLI STUDI DI PARMA
UNIVERSITA DEGLI STUDI DI ROMA
UNIVERSITA DEGLI STUDI DI ROMA
UNIVERSITA DEGLI STUDI DI VE
ERASMUS HOGESCHOOL
INHOLLAND UNIVERSITY
NHTV, INTERNATIONAL
RADBOUD
TECHN
ITALY

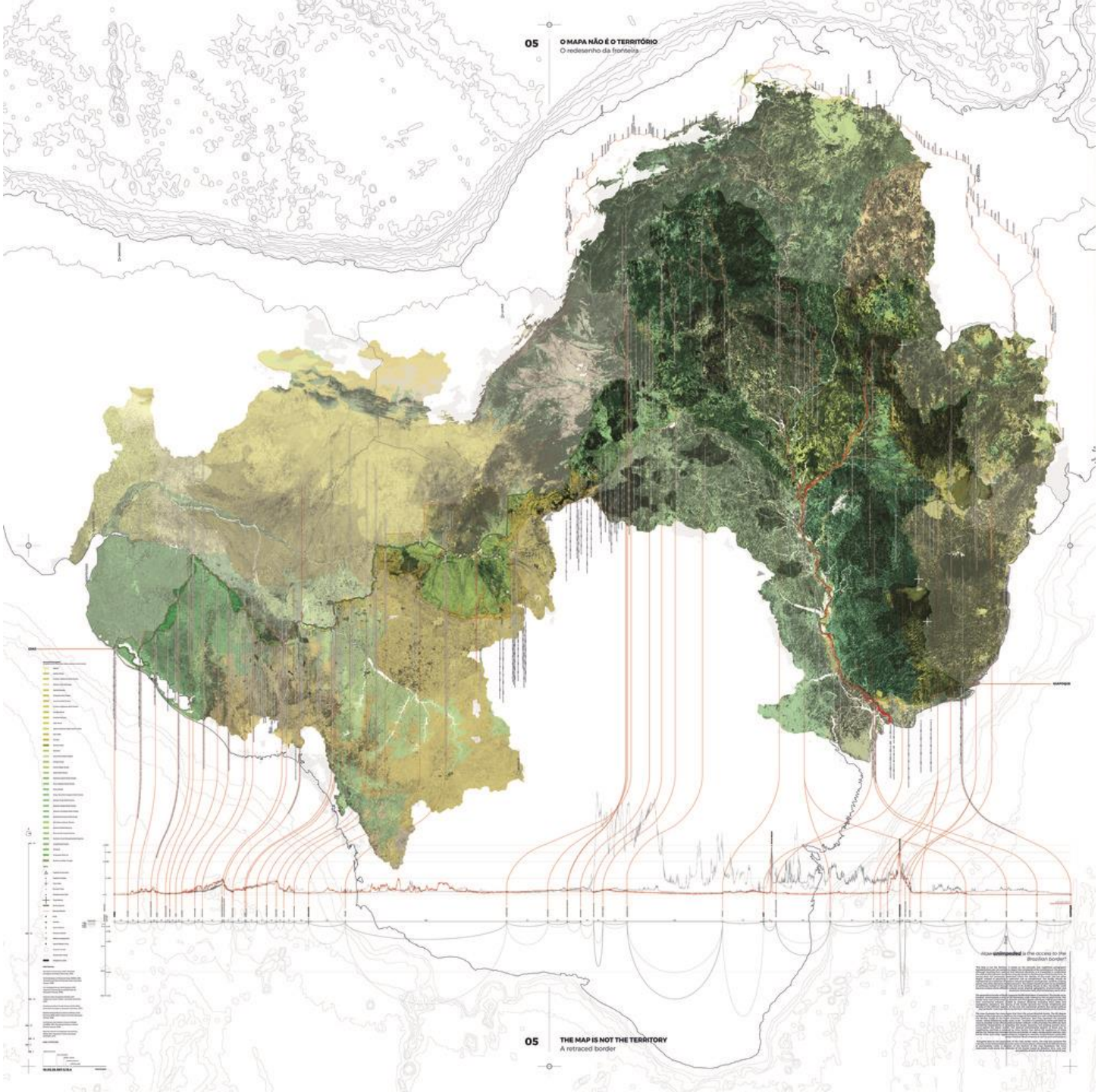
03

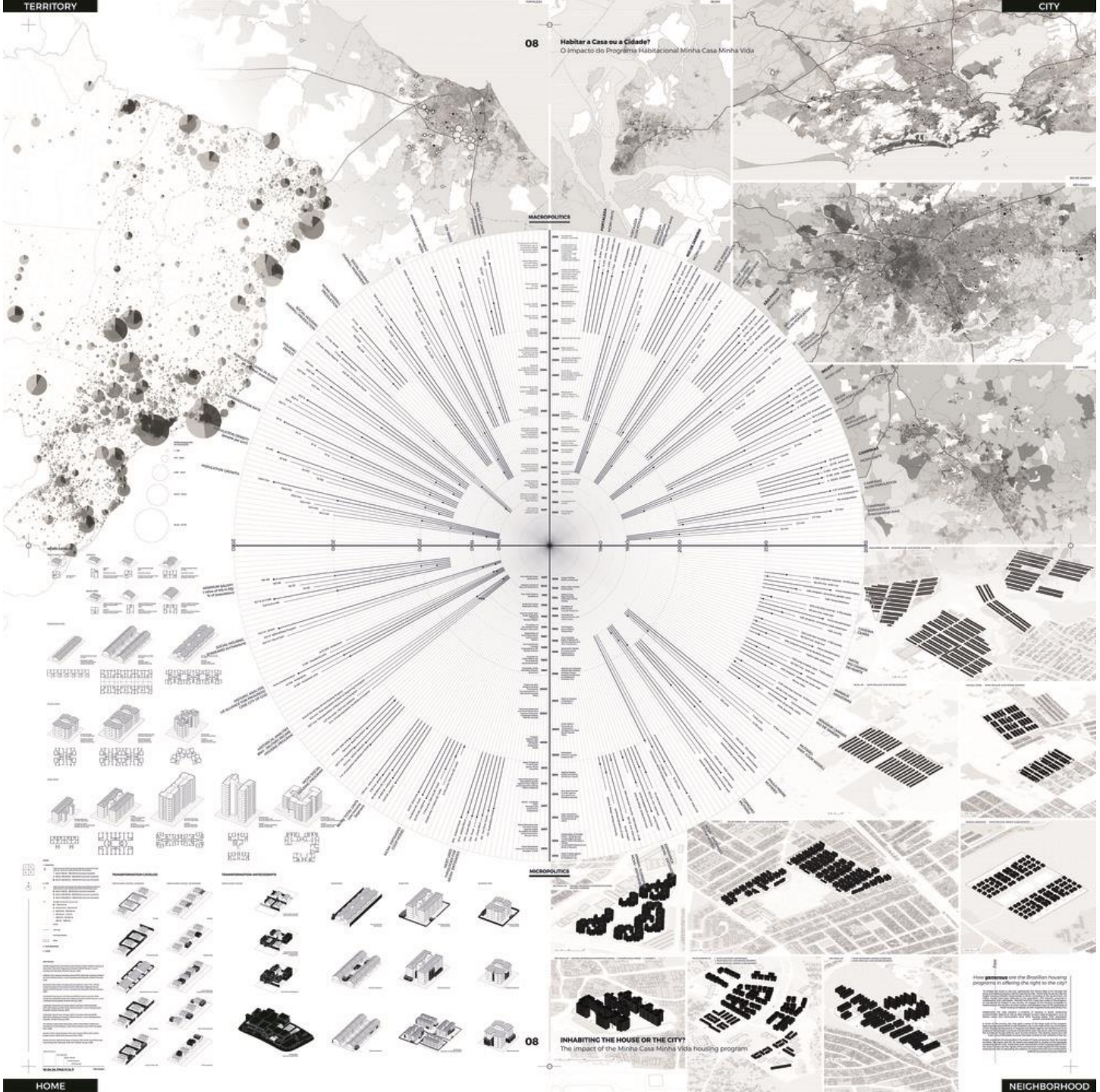
FLUXOS MATERIAIS
Rastros físicos da negociação de commodities

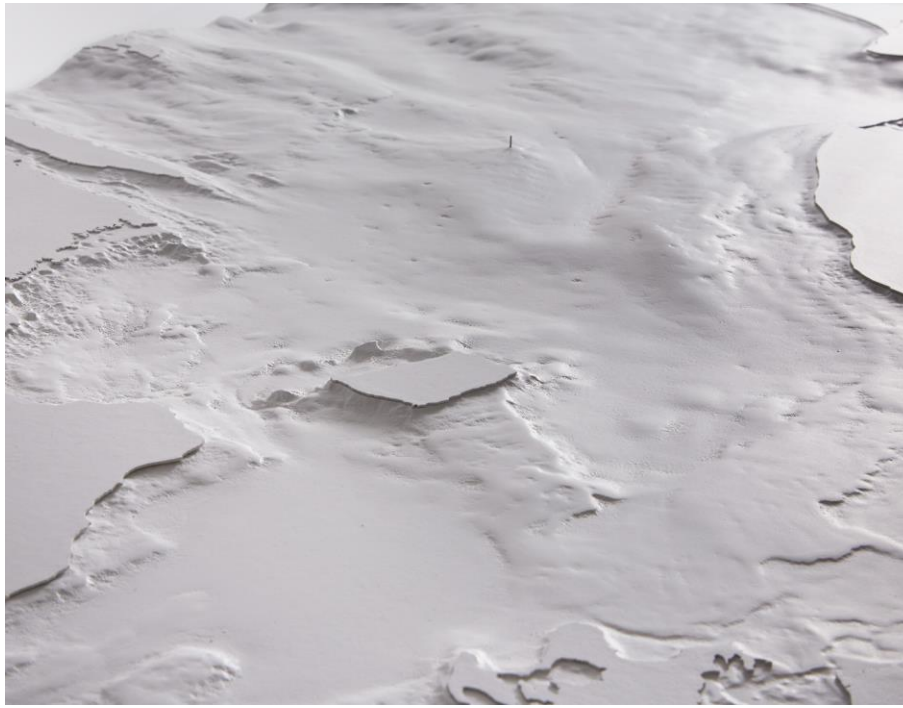


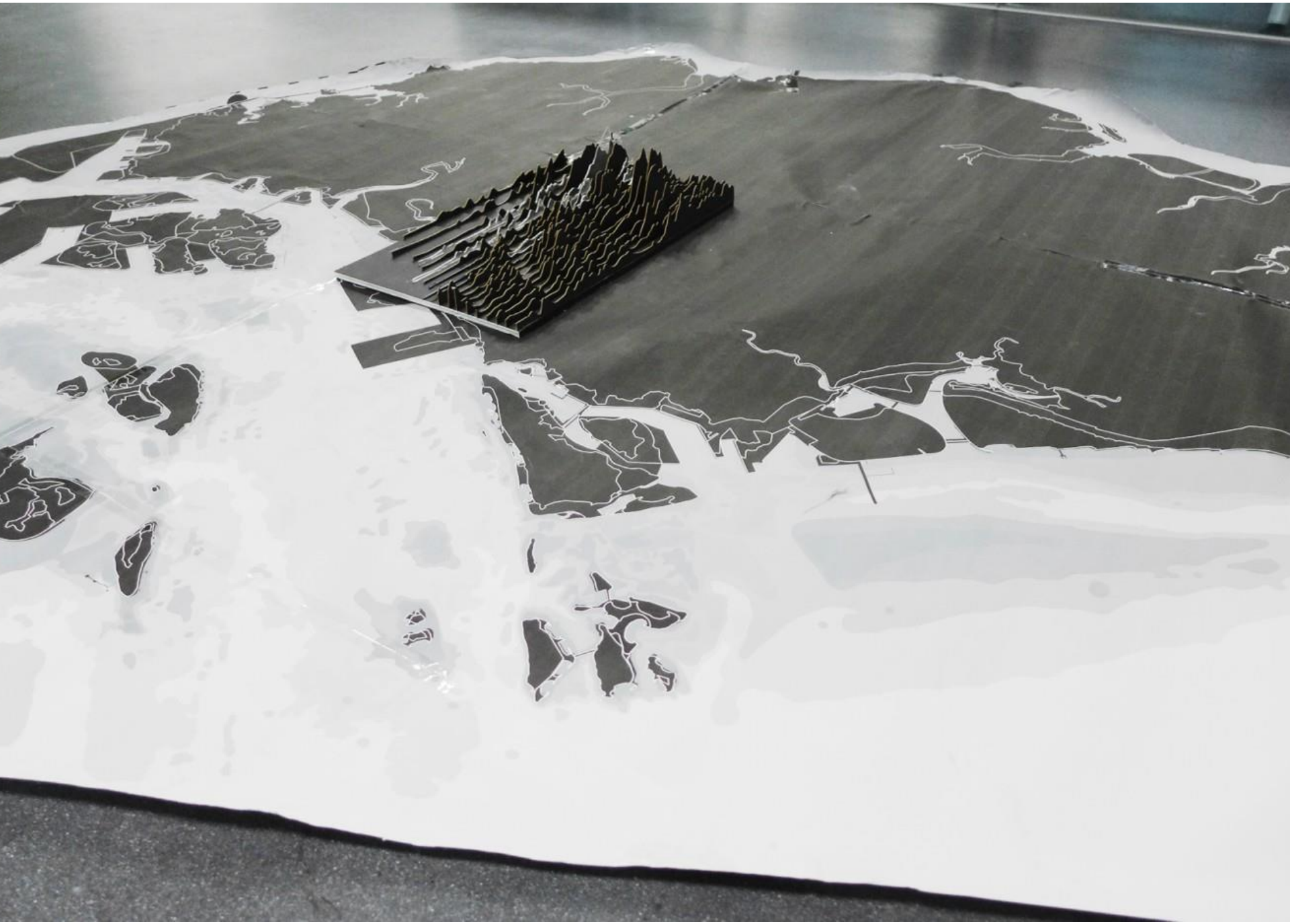
03

MATERIAL FLOWS
Physical imprint of commodities exchange


05
O MAPA NÃO É O TERRITÓRIO
O redesenho da fronteira
05
THE MAP IS NOT THE TERRITORY
A retraced border

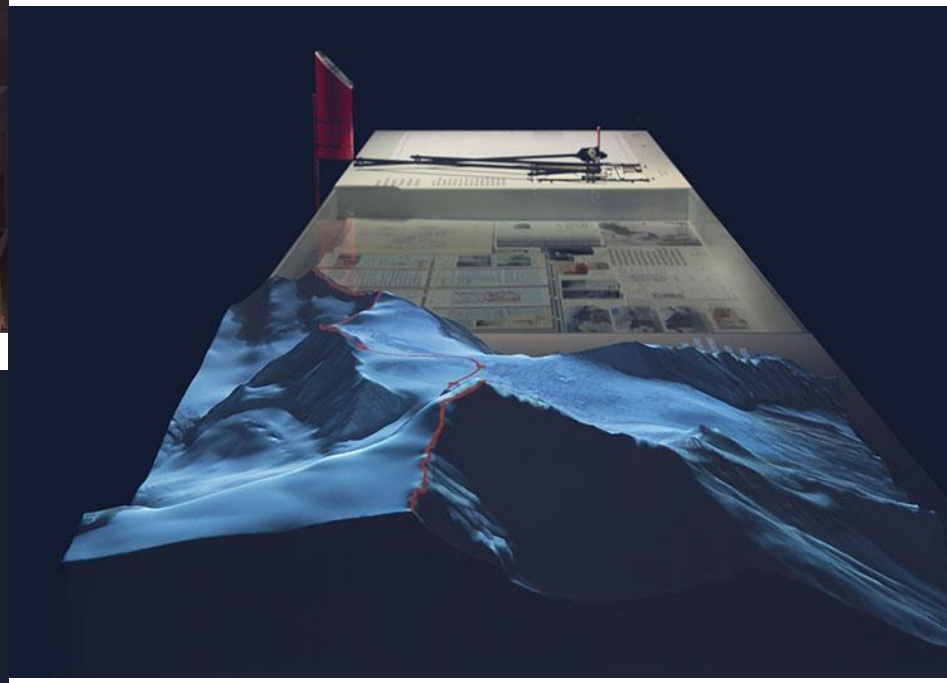

TERRITORY
CITY
08
Habitar a Casa ou a Cidade?
O impacto do Programa Habitacional Minha Casa Minha Vida
MACROPOLITICS
MICROPOLITICS
HOME
NEIGHBORHOOD
08
INHABITING THE HOUSE OR THE CITY?
The impact of the Minha Casa Minha Vida housing program





Italian Limes. Mapping the moving border across Italy’s glaciers.
Biennale di Venezia, 2014.


italian
limes




Swiss-Italian border
Field surveying operations of on the trigonometric vertex of Punta Dufetti (4,538 m), close to the Margherita hut, on Monte Rosa. July 1957
Right: Hochwilde (3,480 m). July 2012.
CARTA TOPOGRAFICA
SCHEMA DELLE OSSERVAZIONI
DESCRIZIONE TOPOGRAFICA
LAVORI ESEGUITI NEL
The exhibits shown here do
the work for the maintenance
the Italian border operated
Istituto Geografi
Italian nati